# ALAGAPPA UNIVERSITY
### *(Accredited with 'A' Grade by NAAC)*
## KARAIKUDI – 630 003 TAMILNADU

## DIRECTORATE OF DISTANCE EDUCATION
**(Recognized by Distance Education Council (DEC), New Delhi)**

# UNDER-GRADUATE / DIPLOMA / CERTIFICATE COURSE PROGRAMMES



## REGULATIONS AND SYLLABI

# ALAGAPPA UNIVERSITY, KARAIKUDI
# DIRECTORATE OF DISTANCE EDUCATION

## *REGULATIONS AND SYLLABI*

### UNDER-GRADUATE / DIPLOMA / CERTIFICATE COURSE

# ghlj;jpl;lKk; tpjpKiwfSk;

**ghltFg;gpd; ngaH** — **gp.ypl;. jkpo;**

top — bjhiyepiyf; fy;tp

tFg;gpd; fhyk; — |d;W fy;tpahz;Lfs;

NrHf;iff;fhd jFjp — gd;dpuz;lhk; tFg;g[j; njqr;rp /
3 Mz;L gl;lag; gbg;G.

## ghlq;fs; kw;Wk; NjHT Kiw

| t.vz;. | ghlq;fs; | nkhj;j kjpg;ngz; |
|---|---|---|
| **Kjyhkhz;L** | | |
| 1.1 | ,f;fhy ,yf;fpak; | 100 |
| 1.2 | ,yf;fzk; - ed;D}y; - vGj;J | 100 |
| 1.3 | jkpHf; tuyhW | 100 |
| 1.4 | rpw;wpyf;fpak; | 100 |
| 1.5 | ,yf;fzk;: ed;D}y; - brhy; | 100 |
| 1.6 | nfhapypd; njhw;wKk; tsqr;rpa[k; | 100 |
| **,uz;lhkhz;L** | | |
| 2.1 | rka ,yf;fpak; | 100 |
| 2.2 | ,yf;fzk; mfg;bghUSk; ahg;g[k; | 100 |
| 2.3 | jkpHpyf;fpa tuyhW | 100 |
| 2.4 | fhg;gpa ,yf;fpak; | 100 |
| 2.5 | ,yf;fzk; g[wg;bghUSk; mzpapyf;fzKk; | 100 |
| 2.6 | nfhapapikg;g[k; jpUt[Ut';fSk; | 100 |
| **%d;whkhz;L** | | |
| 3.1 | gz;il ,yf;fpak; | 100 |
| 3.2 | ,yf;fzk;: bjhy;fhg;gpak;: vGj;J - ,sk;g{uzk; | 100 |
| 3.3 | jHpaYk; gilg;gpyf;fzKk; | 100 |
| 3.4 | ,yf;fzk;: bjhy;fhg;gpak;: bghUs; -,sk;g{uzk; | 100 |
| 3.5 | ,yf;fzk; g[wg;bghUSk; mzpapyf;fzKk; | 100 |
| 3.6 | nfhapy; eilKiwfs; | 100 |
| | **bkhj;jk;** | **1800** |

# jhs;-1.1 : ,f;fhy ,yf;fpak;

## $W-1

ghujpahu; – ghQ;rhyp rgjk;.

## $W-2

ghujpjhrd; – ghz;bad; gupR
Crpfs; (md;dk; ntspaPL> rptfq;if).

## $W-3

lhf;lu;.K.t. – jkpo; neQ;rk; (ghup epiyak;> nrd;id).

## $W-4

mwpQu; mz;zh – re;jpuNkhfd;.
fiyQu;. K. fUzhepjp – tz;bfhud; kfd; (G+k;Gfhu; gpuRuk;>
nrd;id).

## $W-5

R. rKj;jpuk; – rKj;jpuk; fijfs; (kzpthrfu; gjpg;gfk;>rpjk;guk;).
GJikg;gpj;jd; – GJikg;gpj;jd; rpWfijfs; – rhgtpNkhhdk; –
ghp;tz;zk; gps;is – fapw;wuT – Qhdf;Fif – md;W ,uT – thlhky;ypf –
fUr;rpijT – tl;Lf; fijfs; kl;Lk; (Ne\dy; Gf; gpu];> GJby;yp).

## $W-6

nrafhe;jd; – me;j mf;fhitj; Njb (kPdhl;rp Gj;jf epiyak;>
kJiu).
fy;fp – ghu;j;jpgd; fdT (thdjp gjpg;gfk;> nrd;id).

# jhs;-1.2 : ed;Dhy; - vOj;J ( fhz;bifAiu)

**$W-1**

ed;Dhy; ghapuq;fs;.

**$W-2**

ed;Dhy; – vOj;jpay;.

**$W-3**

ed;Dhy; – gjtpay;.

**$W-4**

ed;Dhy; capuPw;Wg; Gzupay;.

**$W-5**

ed;Dhy; – nka;aPw;Wg; Gzupay;.

**$W-6**

ed;Dhy; – cUG Gzupay;.

ed;Dhy; – eilKiwj; jkpo; – nkhhopg;gapw;rp – gpioaw vOjy; (xw;Wg;gpio> njhlu;g;gpio> nghUs; kaf;fk; Kjypa ,y;yhik) – fbjk; my;yJ tuNtw;gpjo; vOJkhW tpdh mikjy; Ntz;Lk;.


**ghHit Ehy;fs;::**
1. ed;Dhy; – fhz;bifAiu

# jhs;-1.3 : jkpof tuyhW

## $W-1

jkpof tuyhw;Wf;Fupa rhd;Wfs; — gy;ytu;> Nrhou;> ghz;bau; nrg;NgLfs; — fy;ntl;Lfs; — ,yf;fpaq;fs; — may; ehl;lhu; Fwpg;Gfs;.

rpe;Jntsp ehfupfq;fs; — jkpofj;jpd; njhd;ik — jkpou; ahu;? — rq;ffhyr; Nru> Nrho ghz;bau; — rq;f fhy murpay;

## $W-2

rq;ffhyf; fy;tp epiy — ngz;bu; epiy — Ie;J jpizg;gFg;Gk; mikg;Gk; — ghz;ba ehl;by; fsg;gpuH — fsg;gpuh; tuyhW — fsp;gpuh; Ml;rpahy; jkpofk; ngw;w ed;ik jPik.

## $W-3

gy;ytu; Njhw;wk; — Kw;fhy ,ilf;fhyf; gpw;fhyg; gy;ytu;fs; tuyhW — Gjpa gy;ytu; kuG — gy;ytupd; tPo;r;rpAk; kiwTk; — gy;ytu; ghz;bau; Nghu; — gy;ytu; rhSf;fpau njhlu;G

gy;ytuhl;rp Kiw — gy;ytu; fhyf; fy;tp epiy — ngz;bu; epiy — r%f tho;f;if — gy;ytu; fhyf; fl;blf; fiy — ,irf;fiy.

## $W-4

gpw;fhyr; Nrhog; Nguurpd; Njhw;wk;- jpUk;Gwk;gpak; Nghu; — gpw;fhyr; Nrhou; tuyhW — Kjy; ,uhruhrd;> Kjy; ,uhNre;jpud; jdpr;rpwg;G — Nrhouhl;rpapy; Gjpa kuG Njhd;wy; — mk;kugpdu; tuyhW — Nrhoupd; tPo;r;rpAk; ghz;bau; vOr;rpAk;.

Nrhouhl;rp Kiw — Cuhl;rp Kiw — r%f tho;f;if — Nrhou;fspd; fly; fle;j ntw;wp — Nrhou;fspd; fl;blf;fiy tsu;r;rp — fy;tp epiy — ngz;bu; epiy — ,ir tsu;r;rp.

## $W-5

,uz;lhk; ghz;bag; NguuR — ghz;bau; Nrhou; njhlu;G — ghz;bau; tPo;r;rpAk; ,Ryhkpau; vOr;rpAk; — khu;f;;Nfh NghNyhtpd; Fwpg;Gfs;.

5

kJiu ehaf;fu; tuyhW – ghisag;gl;L Ml;rp Kiw – kuhl;bau; Ml;rpAk; jkpofKk; – G+ypj;Njtd;> fl;lnghk;kd; – kUJghz;bau; MfpNahupd; tpLjiyg;Nghu;.

## $W-6
,e;jpa tpLjiyg; NghUk; jkpo; ehLk; – Ntjhuzpak; cg;G rj;jpahfpufk; – jkpoff; fiyQu;fs;> ftpQu;fs; ,e;jpa tpLjiyg; Nghupy; gq;FngwYk; Jhz;lYk; – Mq;fpNyauhl;rpahy; jkpofj;Jf;Ff; fpilj;j ed;ikfs; jPikfs; – ngz;zpa ,af;fk;.

## ghu;it Ehy;fs;:
1. njd;dpe;jpa tuyhW – Nf. Nf. gps;is
2. jkpof tuyhWk; gz;ghLk; – Nf. Nf. gps;;is
3. gpw;fhyr; Nrho tuyhW – b. tp rjhrptg; gz;lhuj;jhh;
4. ghz;bau; tuyhW – b. tp rjhrptg; gz;lhuj;jhh;
5. Nruh; tuyhW – jpUke;jpukzp m. Jbiffpohu;
6. gy;yt tuyhW – lhf;lu;. Kh. ,uhrkhzpf;fdhh;
7. ghz;bau; tuyhW – ,uhrNrfu jq;fkzp
8. ngz;zpak; – fjpu; khNjtd;

# jhs;-1.4 : rpw;wpyf;fpak;

**$W-1**

fy;yhlh; — fy;yhlk; — Kjy; ehd;F ghly;fs; — G+kzpahid — gifAld; fple;j vdj; njhlq;Fk; ,uz;L ghl;Lfs; kl;Lk;.

**$W-2**

ee;jpf; fyk;gfk; KOtJk;.

**$W-3**

nghpaho;thh; — jpUg;gy;yhz;L — tz;zkhlq;fs; — khzpf;fq;fl;b — rPjf;fly; — jd;Kfj;J — Mfg; ghRuq;fs; 63 kl;Lk;.

**$W-4**

nraq;nfhz;lhu; — fypq;fj;Jguzp KOtJk;.

**$W-5**

xl;lf;$j;ju; — FNyhj;Jq;f NrhoDyh KOtJk;

**$W-6**

FkuFUguh; — kPdhl;rpak;ik gps;isj; jkpo; KOtJk;.

**jhs;-1.5 : ,yf;fzk; - ed;D}y; - nrhy;**

**$W-1**
    ed;Dhy; – ngaupay;

**$W-2**
    ed;Dhy; – tpidapay;

**$W-3**
    ed;Dhy; – nghJtpay;

**$W-4**
    ed;Dhy; – ,ilapay;

**$W-5**
    ed;Dhy; – capupay;

**$W-6**
    ed;Dhy; – eilKiwj; jkpo; – epWj;jw;Fwpaply; – miug;Gs;sp – Kf;fhw;Gs;sp – Nkw;Nfhs; Fwp> tpag;G> tpdh Fwpfs; Mfpad ,LjYk; mtw;wpd; NjitAk; – ,lNtz;ba newpKiw.


**ghu;it Ehy;fs;:**
1.  ed;Dhy; - fhz;bifAiu
2.  re;jpf;FwpaPl;L tpsf;fk; - kHNu

## jhs;-1.6 : rpwg;Gg; ghlk; - Nfhapw;fiy – I
## Nfhapypd; Njhw;wKk; tsu;r;rpAk;

**$W-1**

Nfhapy;> Nfhtpy; nrhy; tof;F – tiuaiw> Nfhapiyf; Fwpf;Fk; gy;NtW nrhw;fspd; Ml;rp – Nfhl;lk;> Myak;> NjtFyk; ,tw;wpd; tpsf;fKk; fUj;Jk;.

topghl;bd; njhlf;fk; – kuq;fs;> Nrhiyfs; ePu;epiyfspd; fiufs; Mfpad Nfhapypd; mbj;jskhjpy; – Nfhapy;fspy; cUtkpy;yhj topghL – rptypq;f topghL – fUtpis itj;J tzq;fy; – Nkilfs; – $iufs; – fw;gyiffs; – Nfhapyhf cUthjy; – fpuhkj; njia;tf; Nfhapy;fspd; mikg;G.

**$W-2**

Nfhapy;fspd; gupzhk tsu;r;rp – $iu> XL> fy; vdf;Nfhapypd; Nkw;$iu khw;wk; ngw;W tsUjy; – kuf;NfhapyfSk; cNyhfj;jfLfs; Nghu;j;jjjYk; – Fif Filtiuf; Nfhapy;fs; – rkzg; gs;spfs; – fl;Lkhdf; Nfhapy;fs;.

**$W-3**

rq;f Ehy;fshywpag; ngWk; Nfhapy; gw;wpa nra;jpfs; – nja;tq;fs; – GwehDhW> mfehDhW> ew;wpiz> gj;Jg;ghl;L Mfpatw;why; mwpag;ngWtd – Nfhapyikg;G.

rpyg;gjpfhuk;> kzpNkfiy $Wk; Nfhapy; gw;wpa nra;jpfs; – khz;Nlhu;f;Fr; rpiy kikj;jy;/ eLfy; topghL – Xtpakhfj; nja;tq;fs; kikj;jy; – Fyhu; tbf;Fk; nja;tr; rpw;gq;fs; – fijr; rpw;gq;fs; – rJf;fg; G+j topghL.

**$W-4**

Njthuk; $Wk; Nfhapy; tiffs; – Myf;Nfhapy; – fuf;Nfhapy; – nfhFbf; Nfhapy; – khlf;Nfhapy; – Jhq;fhid klk; kw;Wk; gpw.

Cupy; Nfhapyikj;jy; – Nfhapypd; tbt mikg;G – Nfhapypd; mbg;gilg; gFjpfs; – fUtiw – mUj;j kz;lgk; – Fif Filtiuf; Nfhapypfspd; mikg;G – fl;Lkhdf; Nfhapy;fs; – mjp\;lhdk; – gpl;b> gpu];juk; – fphPtk; – rpfuk; – ];Jhgp – tpkhdk; – $L – gz;biff; $L – khlf;$L – Nfh\;lq;fs; – jpUr;Rw;W – jPu;j;jf;Fsk;.

## $W-5

tpkhdk;> NfhGuk;> mtw;wpd; mikg;G — NfhGuq;fs; cUthjy; — nja;tq;fSf;Nfw;g tpkhdk;> thfdk; NtWgly; — \lhq;f tpkhdk;> m\;lhq;f tpkhdk; — NfhGu thapw;gbfs; — NfhGu fyrq;fs;.

Nfhapy;fspd; fhye;NjhWk; Gjpa gFjpfs; Njhd;wp tsUjy; - Gjpa fUtiwfSk; kz;lgq;fSk; Njhd;Wjy; - mtw;wpd; ,d;wpaikahik — Nfhapiyr; rhu;e;J fl;blf; fiy> rpw;gf; fiy> Xtpaf;fiy tsu;jYk; ghOjYk;.

## $W-6

fpwpj;Jtf; Nfhapy;fspd; (Church) mikg;G — fj;Njhypf;fk; — jpUj;jKiwf; fpwpj;Jt mikg;G — jkpofj;jpd; Kjy; khjh Nfhapy; — Ntshq;fd;dp khjh Nfhapy; mikg;G.

,Ryhkpag; gs;sp — k#jpfspd; mikg;G — mtw;wpd; jdpg;ghzp — ,Ryhkpaf;fl;blf;fiy — fpwpj;Jtk;> ,Ryhkpaf; fl;blf;fiyapy; ,e;J rkaj;jphf;fk; — eh$u; Mz;ltu; k#jp mikg;G.

# jhs;-2.1 : rka ,yf;fpak;

## $W-1
jpU%yu; – jpUke;jpuk; – jpU%yH jk; tuyhW $Wjy; – fof ntspaPL (135- 156)

## $W-2
Mz;lhs; – jpUg;ghit KOtJk; (30)

## $W-3
jpUehTf;furu; – ghz;ba ehl;Lg; gjpfq;fs; – jpUthytha; 'NtjpahNtj' – jpUthytha; – '%isj;jhid' – jpUg;Gj;Jhu; – 'Gupe;jkhu;' – jpU,uhNkr;Ruk; – 'ghrKq;' – jpUg;G+tjk; – 'tbNtW' – vd;W njhlq;Fk; gjpfq;fs; Mf 53 ghly;fs; kl;Lk;.

## $W-4
khzpf;fthrfu; - jpUthrfk; – jpUthu;j;ij (10) – vz;zg; gjpfk; (10) ahj;jpug; gj;J (10)

mbfshrpupad; (gjp) – Fjk;ipr; rpj;ju; ghly;fs; %yk; kl;Lk;

## $W-5
rptg;gpufhru; – Nrhziry khiy (Kjy; 30 ghly;)

,uhkypq;f ts;syhu; – nja;tkzp khiy

## $W-6
k];jhd; rhfpG: guhguf; fz;zp – vr;. V fpU\;z gps;is: ,ul;rd;a kNdhfuk; (Kjy; 50 ghly;fs;)

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# jhs;-2.2 : ,yf;fpak; - mfg;nghUSk; ahg;Gk;

**$W-1**

ek;gpafg; nghUs; – mfj;jpizapay;.

**$W-2**

ek;gpafg; nghUs; – fstpay;.

**$W-3**

ek;gpafg; nghUs; – tiutpay;.

ek;gpafg; nghUs; – fw;gpay;.

**$W-4**

ahg;gUq;fyf;fhupif – cWg;gpay;.

**$W-5**

ahg;gUq;fyf;fhupif – nra;Aspay;.

**$W-6**

ahg;gUq;fyf;fhupif – xopgpay;.


**ghHit Ehy;fs;:**
1. ek;gpafg; nghUs; %yk; (xopgpay; ePq;fyhf)
2. ahg;gUq;fyf;fhupif:%yKk; ciuAk;–mz;zhkiy gy;fiyf;fofk;.

# jhs;-2..3 : jkpopyf;fpa tuyhW

## $W-1

jkpopd; njhd;ik – njhy;fhg;gpak; mikg;Gk; Ehy; nghUSk;> vOj;J>
nrhy; nghUs; vd;w %d;wpyf;fzk; Ie;jhf tsUjy; – ghl;bay; ,yf;fz Ehy;fs;.

jkpofj;jpy; rq;fkpUe;jikapd; tuyhW – rq;fkpUe;jijf;Fr; rhd;W –
gjpndz;Nky; fzf;F Ehy;fSk;; mtw;iwg; gw;wpa Fwpg;GfSk; – rq;f
,yf;fpaq;fspd; jdpr;rpwg;G.

## $W-2

gjpnzd; fPo;f;fzf;F Ehy;fs; – mwEhy;fs; Njhw;wj;jpw;fhd
fhuzq;fs; - tr;rpu ee;jpapd; jkpo;r;rq;fk; – rkzu;fspd; jkpo;g;gzp.

jkpo;f; fhg;gpaj;jpd; Njhw;wKk; tsHr;rpAk; – Ik;ngUq; fhg;gpak; –
IQ;rpW fhg;gpak; – ngsj;jHfspd; jkpo;gzp – gpw;fhyr; NrhoH fhyj;jpy;
fhg;gpa tsHr;rp.

## $W-3

Kjyho;thu;fs; – jpUkopiraho;thu;fs; - jpUkq;ifaho;thh; –
ngupaho;thu; – Mz;lhs; – FyNrfuh; – njhz;lubg; nghbaho;thu; –
jpUg;ghzho;thu; – ek;kho;thu; – kJuftp – Mo;thh;fspd; jkpo;g;gzp.

gd;dpU jpUKiw – rk;ge;ju; – jpUehTf;furu; – Re;juH jpU%yu; –
khzpf;fthrfu; – fhiuf;fhy;ikahu; – jppUKiwf;fz;l tuyhW – ghl;bay; ,yf;fz
Ehy;fs;.

## $W-4

gps;isj;jkpopd; Njhw;wKk; tsu;r;rpAk; – guzpapd; Njhw;wKk; tsu;r;rpAk; – fyk;gfj;jpd; Njhw;wKk; tsHr;rpAk;> me;jhjp. Kly;> Nfhit Nghd;w rpw;wpyf;fpaq;fspy; mikg;Gk; Njhw;wKk; ,Ryhkpaupd; rpw;wpyf;fpaj; jkpo;j; njhz;L.

ciueilapd; Njhw;wk; – ciu Ehy;fs; Njhd;wy; – ehlf ,yf;fpa tsu;r;rp – fPu;j;jid> FwtQ;rp ehlfq;fs; – jkpopyf;fpaq;fspy; ehl;Lg;Gwf; $Wfspd; jhf;fk; – ,irj;jkpo; tsu;rp – Nkil ehlfq;fs;.

## $W-5

rpwfijfspd; tsu;r;rp – t.Nt.R. ma;au; – GJikg;gpj;jd; rpWfij tuyhw;wpy; ngWkplk; – nrafhe;jd; rpWfijg; gzp gj;jpupf;iffSk; rpW fij tsur;rpAk; – Nkiyehl;lhu; njhlu;ghy; jkpOf;Fg; gutpa ,yf;fpa tbtq;fspy; ehty; ngWk; Kjd;ik – Ntjehafk; gps;isapd; Gjpdq;fs; – Gjpdq;fspd; ntt;NtW tifahd tbtq;fs;.

## $W-6

,Ugjhk; Ehw;whz;L jkpo;f; ftpij – kuGf; ftpij – ghujpahu;> ghujpjhrd;> ehkf;fy; ftpQH Nt. ,uhkypq;fk; gps;is> ftpQh; Kbaurd;> GJf;ftpij – e. gpr;r%u;j;jp> eh. fhkuhrd;> ftpQh; Nkj;jh> mg;Jw; u`;khd;> ituKj;J.

## jhs;-2.4 : fhg;gpa ,yf;fpak;

**$W-1**

,sq;Nfhtbfs; – rpyg;gjpfhuk; – Gfhu;f;fhz;lk;.

,sq;Nfhtbfs; – rpyg;gjpfhuk; – Gfhu;f;fhz;lk;.

**$W-2**

,sq;Nfhtbfs; – rpyg;gjpfhuk; – kJiuf;fhz;lk;.

,sq;Nfhtbfs; – rpyg;gjpfhuk; – tQ;rpf;fhz;lk;.

**$W-3**

jpUj;;jf;fj; NjtH – rPtfrpe;jhkzp – Nfkrupahu; ,yk;gfk;.

**$W-4**

fk;gu; – fk;guhkhazk; – mNahj;jpah fhz;lk;.

fk;gu; – fk;guhkhazk; – mNahj;jpah fhz;lk;.

**$W-5**

Nrf;fpohu; – jpUj;njhz;lu; Guhzk; – G+ryhu; Guhzk;.

**$W-6**

tPukhKdptu; – Njk;ghtzp – ghiyGFglyk;.

ckWg;Gytu; – rPwhg;Guhzk; – khDf;Fg; gpizepd;w glyk;.

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## jhs;-2.5 : ,yf;fzk; - Gwg;nghUSk; mzpapyf;fzKk;

m. Gwg;nghUs; ntz;ghkhiy (ntl;rpg; glyk; Kjy; ghlhz; glyk; Kba)
M. jz;bayq;fhuk;


**$W-1**

    ntl;rp> fue;ijg; glyq;fs;.

**$W-2**

    tQ;rp> fhQ;rp.

**$W-3**

    nehr;rp> topiQ> Jk;ig.

**$W-4**

    thif> ghlhz;.

**$W-5**

    jz;bayq;fhuk; – nghJtpay;.

**$W-6**

    jz;bayq;fhuk; – nghUzpapapay; - Kjy; gj;J mzpfs;.

    jz;bayq;fhuk; – vQ;rpa mzpfs; 25 kl;Lk;.

**ghl Ehy;fs;**
1. Gwg;nghUs; ntz;ghkhiy – c.Nt. rhkpehijau; (gjp)
2. jz;bayq;fhuk; – F. Re;ju%u;j;jp (gjp)

### jhs;-2.6 : rpwg;Gg; ghlk; - Nfhapw;fiy – II
### Nfhapyikg;Gk; jpUTUtq;fSk;

**$W-1**

Nfhapyikg;gjw;Fupa epajpfs; – G+ gupl;ir – G+ gupf;u`k; – jpf;gupr;Nrjk; - gjtpe;epahrk; - gypfu;k tpjhdk; Kjypad – ,f;fhyj;jpy; Nfhapy mikf;Fk; Kiwfs;.

Nfhapy; jpUg;gzp – fy; jpUg;gzpAk; mjid epiwNtw;wYk; – Rijj; jpUg;gzp – Mahjp fzpjk; ghu;j;jy;.

**$W-2**

jpUf;Nfhapy; mikg;Gk;> cWg;GfSk; – Cu;fSf;Nfw;g Nfhapy; mikg;Gk;> cWg;GfSk; mikj;jy; – cUtq;fSf;F Vw;gf; Nfhapyikg;G NtWgly;.

Nfhapy; kz;lgq;fSk; – tpohf;fSk; kz;lgq;fspd; ngUf;fKk; – jpUf;NfhapYk; jpU;j;jf; FsKk; – kz;lgq;fs; jpUf;Nfhtpy;fspy; kpFjpw;fhd fhuzq;fs;.

**$W-3**

Nfhapiyr; rhu;e;j Ntjhfkk; ghlrhiyfs; mf;fpufhuk; – gRklk; – rj;jpuq;fs;> ee;jtdk; Mfpad Njhd;wpy; mtw;wpd; tsu;rp.

jpUf;Nfhapy;fspy; jpUTUtq;fs; mikjy; — NfhapysTf;Nfw;g cUtq;fs;
mikj;jy; — fUtiwapy; cUtq;fisg; gpujp\;il nra;jy; Xtpaj;jpy; nja;t cUtk; —
Fyhyu; rpiy — Rijr; rpiy — kur;rpiy — fw;rpiy — cNyhfr; rpiy.


## $W-4

jpUTUtq;fis mikj;jw;Fupa nghUs;fs; (fy;> kz;> Rij> lb> cNyhfk;>
nty;yk;> re;jdk; Nghd;wit) mtw;Wf;Fupa tpjpfs; — topghl;bd; jFjp.


jpUTUtk; mt;tpaf;jk;> tpaf;jht;af;jk;> tpaf;jk; — Nghf%u;j;jp>
mgprhu %u;j;jp — jpUkhypd; epd;w> mku;e;j> fple;j Nfhyq;fs;>
nja;tq;fs; jpirfis Nehf;fYk;> mjw;Fupa gaDk;> nfh^uj; nja;tq;fspd; cUt
mikjp.
## $W-5

fzgjpapd; nghJ tbt mikg;G — KUfd; nghJ cUt mikg;G — rptypq;f
cUt mikjp ghHtjpapd; cUt mikjp — eurpk;ku;> ,uhku; fUld; jpUTUt mikjp
— fpuhk Njtijf; Nfhapyikg;G — mjd; mbg;gilapyhd Ntw;Wikfs;.


## $W-6

jpUTUtq;fisg; gpujp\;il nra;jy; — [ythrk; — jhd;athrk; —
epj;jpuhth;thrk; — fz; — jpwg;G vz; kUe;J jahupj;jYk; rhj;jYk; — xd;ghd;
kzpfs; — ae;jpuj; jfL — gpk;gRj;jp — ehb re;jhdk; Fk;ghgpN\fk; —
k`hgpN\fk;.

## jhs;-3.1 : gz;il ,yf;fpak;

**$W-1**

MT+u; %yq;fpohu; ghly;fs; — mfk; 24>  156 > 341 — Gwk; 38> 40> 166> 177> 178> 196> 261> 301.

**$W-2**

fe;juj;jdhu; ghly;fs; — mfk; 23>95> 191 — FW 155 ew; 116> 146> 238> 306.

rpiwf;Fb Me;ijahu; — FW 56>57>62>162>168>222>273>300 ew; 16.

**$W-3**

ef;fPuh; — neLey;thil.

**$W-4**

Fkl;^u;f; fz;zdhu; — gjpw;Wg;gj;J — ,uz;lhk; gj;J.

**$W-5**

ey;ye;Jtdhu; — fypj;njhif — nea;jw;eyp Kjy; 5 ghly;fs;.

Xjyhe;ijahu; — Iq;FWEhW — ghiy Kjy; %d;W gj;J (nrytOq;Ftpj;j gj;J> nryTg;gj;J> ,ilr;Rug;gj;J) — fPue;ijahu; — gupghly; 2 — jpUkhy; — gupghly; 9 — nrt;Nts;.

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**$W-6**

jpUts;Stu; − jpUf;Fws; − xopgpay; − nghUl;ghy; −13 mjpfhuk;.

**jhs;-3.2 : ,yf;fzk; - njhy;fhg;gpak;: vOj;J - ,sk;G+uzk;**

**$W-1**

njhy;fhg;gpak; − vOj;jjpfhuk; − Ehd;kuG.

njhy;fhg;gpak; − vOj;jjpfhuk; − nkhopkuG.

**$W-2**

njhy;fhg;gpak; − vOj;jjpfhuk; − gpwg;gpay;.

njhy;fhg;gpak; − vOj;jjpfhuk; − Gzupay;.

**$W-3**

njhy;fhg;gpak; − vOj;jjpfhuk; − njhifkuG.

njhy;fhg;gpak; − vOj;jjpfhuk; − cUgpay;.

**$W-4**

njhy;fhg;gpak; − vOj;jjpfhuk; − capu;kaq;fpay;.

**$W-5**

njhy;fhg;gpak; − vOj;jjpfhuk; − Gs;spkaq;fpay;.

**$W-6**

njhy;fhg;gpak; − vOj;jjpfhuk; − Fw;wpaYfug; Gzupay;.


**jhs;-3.3 : gad;ghl;Lj; jkpo; - ,jopaYk; gilg;gpyf;fpaKk;**

**$W-1**

,jopay; tpsf;fKk; fl;Lf;Nfhg;Gk; − ,jopay; tiffs; − ,jo;fs; Mw;Wk; gzpfs; − ,jo;fspd; flik − gj;jpupifr; rl;lq;fs;.

,jo;fspd; ,d;wpaikahg; gFjpfs; − nra;jpfs; − nra;jp Nrfupg;G Kiwfs; − epUgu;fs; − epUgu;fspd; jFjpfSk; rKjhag; nghWg;Gk; − rpwg;Gg gFjp − epUgu;fs; − epUgu;fspd; jFjpfSk; rKjhag; nghWg;Gk; − rpwg;Gg gFjp epUgu;fs; − nra;jp epWtdq;fs; − cyfr; nra;jp> ,e;jpar; nra;jp epwtdq;fs;.

**$W-2**

nra;jpfis vOJtJ vg;gb? − jiyaq;fk; − nra;jpj;jiyg;G tiffSk; − mit mikAk; Kiw gf;f mikg;G − rkdpiy> khWghl;Lr; rkdpiy − fyg;G epiyg;gf;f mikg;G − gf;f mikg;gpy; ftdpf;f Ntz;bait

**$W-3**

,jo;fspy; Ehy; kjpg;g;gPL − tpisahl;Luq;fr; nra;jp − ,jo;fspd; njhlu; Ritg; gFjp − ,jo;fSk; jpiur; nra;jpfSk; − Nrhjplf; Fwpg;GfSk; gj;jpupf;iffSk; − ,jo;fSk; ,yr;rpidfSk; − gj;jpupf;iffspd; tpw;gidg; ngUf;fj;jpw;fhd cj;jpfs; − tpsk;guk; − thu mDge;jk;.

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gj;jpupf;iffspd; epUthf mikg;G – Mrpupau; FOtpdUk; mtHfsJ gzpfSk; – RNar;ir gj;jpupf;ifahsu; – gj;jpupf;ifahsupd; rKjhag; nghWg;G.

## $W-4

,jopay; tuyhW – ,e;jpa ,jopay; tuyhW> jkpo; ,jopay; tuyhW – jkpopjopay; ,af;fj; jiytu;fs; – jpU.tp.f. gryp R. ney;iyag;gu; – v];.v];. thrd; – b.v];. nrhf;fypq;fk; – V.vy;. rptuhkd; – jpdj;je;jp Mjpj;jdhu;.

kpd; topr; rhjdq;fs; – (m) thndhyp – Nehf;fKk; nraw;ghLk; – xypgug;Gr; nra;jpfs; – r%f Nkk;ghl;Lg; gzp – (M) njhiyf;fhl;rp mQ;ry; epiyaq;fs; – nraw;iff;Nfhs; njhlu;G tsu;r;rp – mtw;why; Vw;gl;Ls;s r%f khw;wq;fSk; mwpa tsu;r;rpAk; jpiug;glKk; fUj;Jg; gutYk; – mjdhy; tpise;j r%f khw;wk;.

## $W-5

kpd;dDj; njhiytup (E-mail Electronic Mail) Nehf;fKk; gaDk; cldbj; jfty;fs; - gupkhw;wk;> fzpzpapd; Nehf;fk; – gad; – fzpzpapd; ,izj; njhiyfs; – fzpg;ghd; ,jo;fs; – ,izak; (Internet) Njhw;wKk; Nehf;fKk; – gad; – cyff; fzpg;ghd;fspd; ,izg;G – jfty; gupkhw;wk; jfty; gq;fPL.

**gpd;tUk; ,uz;L $Wfspy; fl;Liu tpdhf;fis mikf;f**

## $W-6

kuGf; ftpij my;yJ GJf;ftpij xd;W vOJkhW tpdh mika Ntz;Lk;. kuGf; ftpij – ntz;gh> Mrpupag;gh> tpUj;jk;

rpW fij xd;W my;yJ fl;Liu my;yJ eifr;Ritj; JZf;Ffs; %d;W vd;W %d;wpy; vitNaDk; ,uz;L vOJkhW tpdhf; Nfl;fyhk;.

## jhs;-3.4 : njhy; - nrhy; - Nrdhtiuak;

**$W-1**

njhy;fhg;gpak; – nrhy; – fpstpahf;fk;.

**$W-2**

njhy;fhg;gpak; – nrhy; – Ntw;Wikapay;.

njhy;fhg;gpak; – nrhy; – Ntw;Wik kaq;fpay;;.

njhy;fhg;gpak; – nrhy;; – tpspkuG.

**$W-3**

njhy;fhg;gpak; – nrhy; – ngaupay;.

**$W-4**

njhy;fhg;gpak; – nrhy;; – tpidapay;.

**$W-5**

njhy;fhg;gpak; – nrhy;  –  ,ilapay;.

njhy;fhg;gpak; – nrhy; – cupapay;.

**$W-6**

njhy;fhg;gpak; − nrhy; − vr;rtpay;.

**jhs;-3.5 : njhy;fhg;gpak; - nghUs;;: ,sk;G+uzk; (nra;Aspay; ePq;fyhf);**

**$W-1**

njhy;fhg;gpak; − nghUsjpfhuk; − mfj;jpizapay;.

**$W-2**

njhy;fhg;gpak; − nghUsjpfhuk; − Gwj;jpizapay;;.

**$W-3**

njhy;fhg;gpak; − nghUsjpfhuk; − fstpay;.

**$W-4**

njhy;fhg;gpak; − nghUsjpfhuk;− fw;gpay;.

njhy;fhg;gpak; − nghUsjpfhuk; − nghUspay;.

**$W-5**

njhy;fhg;gpak; − nghUsjpfhuk; − nka;g;ghl;bay;.

njhy;fhg;gpak; − nghUsjpfhuk; − ctkapay;.

**$W-6**

    njhy;fhg;gpak; − nghUsjpfhuk; − kugpay;.

**jhs;-3.6 : Nfhapy; eilKiwfs;**

**$W-1**

    Nfhapy; topghLk; kf;fSk; − Nfhapy;fspy; epj;jpa G+ir kuG − nghhUs; trjpAk; jpUf;Nfhapy; G+[h fhyq;fSk; − MW fhy G+ir − jDhu; khj G+ir − NrhlNrhgrhuk; − G+iriaj; njhlq;fYk; epiwT nra;aYk; − Nfhapy; eiljpwj;jYk; %LjYk; − mUj;jrhkg; G+ir − fpuhkf; Nfhapy; G+ir eilKiwfs; .

**$W-2**

    G+ir ieNtj;jpaKk; − ieNtj;jpaKk; mtw;Wf;fhd gaDk; − ieNtj;jpaq;fisj; jahupj;jlk; mtw;wiwj; nja;tq;fSf;Fg; gilf;Fk; KiwfSk; (fUtiwf;Ff; nfhlzUjy;;) − kilg;gs;sp − Rak;ghfj;jpd; gzp − goepg; gQ;rhkpd;jlk; − cg;gpypfhgd; Nfhapy; iepj;jpak; − jpUtpuq;fk; ru;f;fiug; nghhq;fz; − xt;nthU eiljtpiy;Fupa ieNtj;jpaq;fs; − ehl;;Lg;Gwf; Nfhapy;fSk; ieNtj;jpaq;fSk; − capu;gypj.

**$W-3**

    mgpN\fj;jpd; NjitAk; ,d;wpailkahikAk; − jPu;j;j;jpu; rpwg;G − mgpN\fk; n[aq;fSk; − mgpN\fg; nghhUl;fs; − mtw;Wf;Fgh Nehf;f;fKk; gaDk; − mgpN\fk; nra;Ak; Kiw − irt itztf; Nfhapy;fSk; fpuhk eja;tf; Nfhapy;fspAk; eilngWk; mgpN\f kuGfs; − G+irapy; kzpabj;jp;.

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jpUf;NfhtpYk; jpUtpohf;fSk; — nfhbkuKk; mjd; mikg;Gk; — nfhbr;
rPiyia cUthf;Fjy; — gpuk;Nkhw;rtk; — ahfrhiy — fhg;Gf;fl;ly;> Kisg;ghup>
Ngup G+ir> NkhJ fl;b ,Oj;jy; — jpUtpohTk; nja;tq;fspd; myq;fhuKk;
mtw;iwj; juprpg;gjd; gaDk; — jpUfy;ahz cw;rtk; — njg;Nghw;rtk;.

## $W-4

thfdq;fs; — thfdq;fis kuk;> nts;sp Mfpatw;wpy; cUthf;fy; —
nja;tq;fSf;Fk; jpUtpohTf;Fk; Vw;wthW thfdq;fisg; gad;gLj;jy; — thfdk;
nra;jspg;gjd; gyd;fs; — fhkNjD — njUtjpr;rhd; — thfdq;fSk; — G+
myq;fhuKk;. NjUk; NjNuhl;lKk;.

nja;tq;fis tpohtpw;Fj; jf;fthW Nrhlid nra;jy; — m];jk;> ghjk;>
Jzpg; ge;jq;fs;> nty;ntl;Lj; Jzpfis Fz;;^rp nfhz;L gpizj;jy; — eiffs; —
fUtpfs; — cs;khiy> thif khiy jpUthr;rp — gpuk;Nkhw;rtk;> etuhj;jpup
fhyq;fspy; xt;nthU ehSk; ntt;NtW tifahd myq;fupj;jy;

## $W-5

jpUf;NfhtpYk; kf;fSk; — kf;fspd; Neu;j;jpf; fld;fs; — Kbapwf;fy; —
mq;fg;gpujl;rzk; — njhl;by; fl;ly; — G+f;Fopapwq;fy; — nrby;> gwitf;
fhtb — ghy;Flk; vLj;jy; — fhtb vLj;jy; — fhtbfspd; mikg;Gk; tiffSk; —
myFFj;jy; — eilg;gazkhfg; Nghjy;

jpUf;Nfhtpy;fSk; fiyfSk; — ehjRuk;> Nksk;> Ngupf> rq;F Nghd;w
,irf; fUtpfs; ,lk;ngwy; — ehjRu ,iuAk; Nfhapy; epforptpfSk; — fPjhj;jpa
epUj;jk; — Njjhu ,d;dpir — jpUf;Nfhtpy; Njt jhprfUk; — Nfhapypur;
rhu;e;;J ehl;Lg;Gwf;fiyfs; tsUjy;.

## $W-6

jpUf;Nfhtpy;fSk; ,yf;faKk; — Nfhapypy; xl;bg; gjpfk;> jyGuhzk;>
cyh> Cly; Nghd;wit Njhw;wk; ngWjy; — Nfhapy; eilKiwfis tpsf;Fk;
njhd;ikahd E}y;fs; — jpUtuq;fk; Nfhapy;xOF — jpUf;Nfhapy; G+rfHfs; —
rptpur;rhupahH — mj;jpahd; gl;lH — ctu;rH — gl;lH — NtshH my;yJ FyhyH —
gz;lhuk; MfpNahH gw;wpa Fwpg;Gfs;.

jpUf;Nfhtpy; ghJfhg;G — NfhGuq;fs;> tpkhdq;fisg; ghJfhj;jYk; mjw;fhd newpKiwfSk; — mwepiyaj;JiwAk; Nfhapy; epUthfKk; — Fk;ghgpN\fk; nra;a Ntz;ba #oy;fSk; NjitAk; - jpUf;Nfhapypy; topgl Ntz;ba Kiw — m\;lhq;f ek];fhuk;.

**ghu;it Ehy;fs;:**
1. jkpopyf;fpa tuyhW — lhf;lu; Kt. rhfpj;jpa mflhkp> nly;yp
2. Gjpa Nehf;fpy; jkpopyf;fpa tuyhW — lhf;lH jkpoz;zy;> kPdhl;rp gjpg;gfk;> kJiu
3. jkpo; ehty; — rpl;b & Nrh. Re;juh[d;
4. jkpo;r; rpWfij — rpl;b & Nrh. Re;juh[d;.
5. jkpopyf;fpa tuyhW — vk;. Mu; milf;fyrhkp.

**LANGUAGE IN LIEU OF TAMIL PART-I :**
## jkpo;j; jhs; 1.1: jkpo;r; nra;As;

**$W–1**

**1.** fz;zjhrd; – =fpU\;z fhdk;
1. Gy;yhq;Foy; nfhLj;j
2. FUtha+Uf;F thUq;fs;
3. NfhFyj;Jg; gRf;fs;
4. NfhFyj;jpy; xU ehs; uhij
5. Mah;ghb khspifapy;

**2.** gl;Lf;Nfhl;il fy;ahz Re;juk;
1. neQ;rpy FbapUf;Fk;
2. nra;Ak; njhopNy nja;tk;

3. ghujpahh;
1. fz;zd; vd; tpisahl;Lg; gps;is
2. ghuj khjh jpUg;gs;sp vOr;rp
4. ghujpjhrd; – cyfg;gd; ghl;L(5)
5. ehkf;fy; ftpQH – Nehaw;w tho;T 7 ghl;L
6. ng.J}ud; – epyhg;gpQ;R

**$W–2**
7. ty;ypf; fz;zd; – ntWk; Gfo;
8. F.g. ,uh[Nfhghyd; – vjw;fhf?
9. kPuh – gjpide;J
10. rpw;gp – rh;g;g ahfk;
11. Qhdf;$j;jd; – NjhoH Nkhrp fPudhh;
12. mg;Jy; uFkhd; – fz;Zk; vONjk;
13. rz;Kf Rg;igah – tapW

**$W–3**
14. rpyk;gjpfhuk; – tof;Fiu fhij
15. fk;guhkhazk; – mNahj;jpah fhz;lk;
16. rPwhg;Guhzk; – <j;jq;Fiy tutioj;j glyk;(1)
17. Njk;ghtzp – fhl;rpg;glyk;

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$W 4

ghly;

1. ,d;dthapy;
2. nfhOe;JWk;
3. gQ;(r) muq;fpy;
4. vz;ZNs
5. xz;jyq;fs;
6. ,utp Nta;e;j fQ;rf;
7. fd;dpahajhAk;
8. Ve;jp Yq;F csj;J
9. Mt NjKdh;
10. nfhy;Yk; NtnyhLk;
11. vd;w thrfk;
12. mk;gpdhy;
13. mtz;Lk; XH tpid
14. nrhy; jtph;e;j
15. md;id
16. mQ;Rthh;
17. nrhy;yf; Nfl;lds;
18. kw;nra;if
19. kz;fdpag;
20. mOJ Mh;e;j
21. ngha; nghJSk;
22. ,d;G mUe;J
23. tOjhapd ,d;G
24. kwk; Vtpdhh;
25. kz;Nzhh;fs;
26. ngha;;ah tpjppNgha;
27. tpbah ,Us;
28. mOthh; vtUk;

$W−5 rpWfij
1. ePygj;kehgd; — thd tPjpapy;
$W−6 ciueil
1. fk;gd; Gwj;jpiz jp. nrhf;fpyq;fk;
**,yf;fzk;**
**vOj;Jk;> nrhy;Yk;**

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**$W–7**

     1. KjnyOj;Jf;fs;> rhh;ngOj;Jf;fs;.
     2. nkhop KjnyOj;Jf;fs;> nkhop ,Wjp vOj;Jf;fs;.
     3. xw;nwOj;J kpfYk; kpfhikAk;
     4. MF ngah;> md;nkhopj; njhif.
     5. tpdh - tpil tiffs;.

**$W–8**

1. jkpo;r; nrhy;yikg;gpd; rpwg;G - ngah;> tpid> ,il> chp tbtq;fs;.
2. Gpwnkhopr; nrhw;fisj; jkpopy; MSk; Kiwfs;.
3. my; top> Ntw;Wikg; Gzh;r;rpfs;.
4. jpiz> ghy;> vz;> ,l ,iaG.

<div align="center">

**jkpo; ,yf;fpa tuyhW**

</div>

**$W–9**

    1. ,f;fhy ,yf;fpa tiffs;:
        m. kuGf; ftpij
        M. GJf; ftpijapd; Njhw;wKk; tsh;r;rpAk;

    2. ciu eil ,yf;fpaq;fs; – Njhw;wKk; tsh;r;rpAk;
        m. fl;Liu    M. rpWfij   ,. Gjpdk;   <. ehlfk;

**$W–10**

    1. ,f;fhy ,yf;fpaf; fsq;fs;:
     jpiug;glk;> njhiyf; fhl;rp> thndhyp> ,jo;fs; jkpOf;F Mw;wp
     tUk; gzpfs;.

  2. jkpOk; rkaKk;:;
     m. irtk;   M. itztk;   ,. rkzk;   <. ngsj;jk;
     c. ,Ryhk;   C. fpwpj;Jtk;

    3. Gpw;fhyf; fhg;gpaq;fs;:
        m) fk;guhkhazk;
        M) ngupaGuhzk;
    4. ,izak; – gw;wpa nra;jpfs;:

## *Part-1: Paper-1.1: HINDI*

**UNIT I**

Poetry: Kabirdas – Soordas – Bhihari – Jaya Sankar Prasad – Suryakanth Tripadi Nirala – Maha Devi Varma – Ramadhari Singh Dinkar – Nagaurjan – Dharmaveera Bharathi – Dhoomil – Poets – Poems.

**UNIT II**

One Act Plays: Sooryodaya by Kamalakanth Varma – Udayan by Dr. Ramakumar Varma – Mayopiya by Udayasankar Bhatt – Bujhata Deepak by Bhagavathicharan Varma – Vishakanya by Govinda Vallabh Pant.

**UNIT III**

Grammar : Noun – Gender – Number – Case – Pronoun and Adjective.

**UNIT IV**

Official Correspondence : Padadikariyom Se Patra Vevahar – Vyavasayika Patra – Sampadak Ke Nam Patra – Sarkari Patra.

**TEXT BOOKS :**
1. Ram Kishor Sharma, *Padhya Pravah*, Loka Bharathi Prakashan, Allahabad.
2. *Sooryodaya*, Dakshina Bharat Hindi Prachar Sabha, Chennai.
3. *Sugam Hindi Vyakarana*, Vanshi Dhar and Dharmapal Shastri, Delhi.
4. Viraj M A, *A Manual of Office Correspondence – Drafting and Noting in Hindi*, Rajpal and Sons, Delhi.

# Part-1: Paper-1.1: COMMUNICATION SKILLS

UNIT I

**Communication:** Meaning – Types – Importance – Barriers – Principles of Effective Communication.

UNIT II

**Oral Communication:** Meaning – Importance – Improving Pronunciation and Diction – Preparation of Speech – Steps Involved – Principles of Effective Oral Communication.

UNIT III

**Written Communication:** Meaning – Importance – Use of Words and Phrases – Sentence Formation – Paragraph Writing – Essay Writing – Steps Involved – Outline – Layout – Contents – Drafting – Correction – Final Draft – Application for Employment and Curriculum Vitae Preparation.

UNIT IV

**Non-Verbal Communication:** Meaning – Types – Body Language – Postures, Gestures, Facial Expressions, Eye Contact

UNIT V

**Report Writing:** Reports – Types of Reports – Procedure involved in Preparing the Reports – Meetings: Preparation of Notice – Agenda – Minutes – Group Discussion: Quality of Content – Participation – Logical Presentation – Behavioural skills.

**REFERENCE BOOKS:**

1.  Krishna Mohan & Meera Banerjee, *Developing Communication Skills*, 2005.
2.  Geetha Nagaraj, *Write to Communicate*, 2004.
3.  Wren & Martin, *English Grammar and Composition*, 2002.
4.  Dale Carnegie, *How to Win Friends and Influence People*, 1981.
5.  Dale R Jordan, *Language Skills and Use.*
6.  Gartside L. Bahld, Nagammiah and McComas, Satterwhite, *Modern Business Correspondence.*
7.  Rajendra Pal and Kortahalli J S, *Essentials of Business Communication.*
8.  Wallace, Michael J, *Study Skills in English.*
9.  Editors of Readers Digest, *Super Word Power.*
10. Stanton, Nicky, *Mastering Communication.*

## *Paper 1.2 : ENGLISH - PAPER-I*

Prose: Water-the Elixir of Life – On Letter Writing – Mrs. Packletide's Tiger – The Cat – A Deed of Bravery – Our Civilization – Food – A Hero on Probation – Dangers of Drug Abuse – Our Ancestors.

Grammar : Articles – Gerunds – Infinitives – Participles – Auxiliaries – Modals – Prepositions – Tenses – Transformation of Sentences – Direct – Indirect Speech.

Composition : Developing hints – Letter writing – Paragraph writing – Dialogue writing – Precis writing.

**TEXT BOOKS :**

1. Sebastian D K, *Prose for the Young Reader*, Macmillan.
2. *Active English Grammar*, Ed. by Board of Editors, Macmillan.

# gFjp-1 : jhs;-2.1 :  jkpo; ,yf;fpak;

## $W-1

1.  gj;Jg;ghl;L – Ky;iyg;ghl;L
2.  vl;Lj; bjhif - I';FEW}W – fgpyq - Fwp";rpj;jpiz - k";i"g;gj;J – Kjy; |d;W ghly;fs;/

## $W-2

(1)  FWe;bjhif        - ghzq ghly;fs;. gh/ vz; 19, 24, 36, 128, 399.

(2)  ew;wpiz  - bgU';Fd;W}qfpHhq -   gh/ vz; 5
                        bgUtGjpahq              -   gh/ vz; 55
                        bgU';bfsrpfdhq    -   gh/ vz; 139
                        fUt{qf;nfhrpfdhq   -   gh/ vz; 214
                        cnyhr;rdhq            -   gh/ vz; 249

## $W-3

      mfehD}W      -  nre;jk;g{jdhq ghly;fs; gh/ vz; 84, 207
      g[wehD}W    -  khnwhf;fj;J eg;griyahq ghly;fs;. gh/ vz; 37,
                      39, 126, 226, 280/

## $W-4 : gjpndz; fPo;f;fzf;F

1.  jpUf;Fws; - thH;f;ifj;Jiz eyk; (6). mwpt[ilik (43). gpupthw;wik (116)/

2.  ehd;kzpf;foif – vs;sw;f (3). giwglthHh (4). kz;zpawpg (5). fs;sp tapw;wpy; (6). fy;ypw; gpwf;Fk; (7)/

## $W-5

      ehlfk; - ,uhruhr nrhHd; - mU/ ,uhkehjd;/

## $W-6

      ehty; - RtLfs; - ,uh/ ghyRg;gpukzpad;. rj;jpah btspaPL. kJiu/

## $W-7

      bra;a[s; cWg;g[fs; - ahg;g[. vGj;J. mir. rPq. jis. mo. bjhil – btz;gh. Mrpupag;gh. fypg;gh. t";rpg;gh – g[jpa ahg;g[ tot';fs; - rpe;J. fz;zp. fPqj;jid – g[Jf;ftpijapy; FwpaPL. gokk;/

## $W-8

*  mfg;bghUs; - g[wg;bghUs; - Ie;jpiz tpsf;fk;/

- mfg;bghUs; Jiwfs; - tiut[ flhjy;. mwj;bjhL epw;wy;. cld;nghf;F/
- g[wg;bghUs; Jiwfs; - t";rpdf;fh";rp. ifaWepiy. brtpawpt[W}c/
- mzp ,yf;fzk; - ctik. cUtfk;. ntw;Wik. gpwppJ bkhHpjy;. jw;Fwpg;ngw;wk;. rpnyil. gpd;tUepiy/
- epWj;jy; Fwpfs;/

# ,yf;fpa tuyhW

## $W-9

bjhy;fhg;gpak; - r';f ,yf;fpak; - vl;Lj;bjhif. gj;Jg;ghl;L – gjpbdz; fPH;f;fzf;F/

## $W-10

Ik;bgU';fhg;gpa';fs; - gpw;fhyf; fhg;gpa';fs; - fk;guhkhazk;. bgupag[uhzk; - ,f;fhyf; fhg;gpa';fs; - ghujpjhrd; gh";rhyp rgjk; - ghujpjhrd; ghujpjhrd; ghz;oad; gupR – fz;zjhrd; ,naR fhtpak; - rpw;gpapd; bksd fhf;f;fs;/

36

## PART-II Paper 2.1 : HINDI

**UNIT I**

Prose: Aap Vephikr Raham – Budappa – Kadamb Ke Phool – Bharat Ek Hai – Jeevan Ki Teen Pradhan Baten – Taj – Loka Nayak Tulasidas – Bade Bhai Sahab – Japan Men Kya Dekha – Paramanu Sakthi Ka Bharish.

**UNIT II**

Novel: Kadiyam (Non-detailed book).

**UNIT III**

Journalism: Patrakarita (Chapter-1) – Patrakarita: Prakar (Chapter-6).

**UNIT IV**

Letter Writing: Karyalaya Gyapan – Ardhasarkari Patra – Pari Patra – Anusmarak.

## TEXT BOOKS :

1. *Hindi Gadhya Prabhakar*, Hiranmaya, Rajpal & Sons, Delhi.
2. Bhisham Sagni, *Kadiyam*, Rajkamal Prakashan, New Delhi.
3. Madhu Dhawan, *Patrakarita Ek Parichaya*, Boadh Prakashan, Chennai.
4. Viraj M A, *A Manual of Office Correspondence – Drafting and Noting in Hindi*, Rajpal and Sons, Delhi.

## *PART-II  Paper 2.1  HUMAN SKILL DEVELOPMENT*

**UNIT I**

Human Skills: Developing Skills – Types – Mind: Levels of functions – Habits: Meaning – Types – Merits of good habits – Interpersonal Relationships – Features – Interpersonal behaviour – Thinking ahead: Significance of thinking ahead.

**UNIT II**

Developing Personality: Meaning – Need – Factors influencing personality – Ways of developing personality – Self-concept – Self-esteem – Self-efficacy – Self-acceptance – Meaning, importance – Building positive personality – Etiquettes: Meaning – Etiquettes in using mobile, telephones – Dais etiquettes.

**UNIT III**

Goal Setting Skills: Meaning – Types – Importance – Problem-solving Skills: Meaning – Ways of problem-solving – Decision-making Skills: Meaning – Types – Steps in decision-making – Negotiating Skills: Styles – Structure – Creating negotiation – Competitive negotiation.

**UNIT IV**

Attitudes: Meaning – Types – Importance – Developing positive attitudes – Coping with Change: Meaning – Characteristics – Importance of change – Resistance to change – Dealing with change – Leadership: Meaning – Characteristics – Styles – Qualities of a good leader.

**UNIT V**

Human Relations Skill: Need – Canons of good human relations – Counselling: Meaning – Importance – Forms – Techniques of counselling – Conflicts: Meaning – Types – Causes – Effects – Management of conflicts.

**UNIT VI**

Stress: Meaning – Types – Causes – Effects – Managing the stress – Anger: Meaning – Causes – Consequences – Anger management.

**REFERENCE BOOKS:**
1. Les Giblin, *Skill with People*, 1995.
2. Shiv Khera, *You Can Win*, 2002.
3. Christian H Godefroy, *Mind Power*.
4. Dale Carqegie, *How to Enjoy Your Life and Your Job*, 1985.
5. Natalie H Rogers, *How to Speak without Fear*, 1982.
6. Dale Carnegie, *How to Develop Self-Confidence and Influence People by Public Speaking*.

## PART-II  Paper 2.2  :  ENGLISH  -  PAPER-II

Poetry : Shakespeare – Sonet XVIII; Wordsworth – Upon Westminister Bridge; John Keats – Ode on a Grecian Urn; Robert Frost – The Road Not Taken; Wilfred Owen – Strange Meeting; Stephen Spender – The Express; Tagore – Where the Mind is Without Feat; Sarojini Naidu – Coromandel Fishers; Nissim Ezekiel – Night of the Scorpion.

Shakespeare :  The Merchant of Venice.

Language Use : General Essay – Comprehension – Note Making – Report Writing.

## TEXT BOOKS :

1. Seshadri P K, *The Golden Quill*, Macmillan.
2. Shakespeare, *The Merchant of Venice* (Any Overseas Edition).
3. *Active English Grammar*, Ed. by Board of Editors, Macmillan.

**Course : B.A. (English)**

| | | |
|---|---|---|
| Mode | : | Distance Education |
| Duration | : | Three Years |
| Eligibility | : | Pass in Higher Secondary / 3 year Diploma |
| Medium | : | English |

COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|---|---|---|
| **I YEAR** | | |
| 1.1 | Part – I : Tamil/ Hindi Paper-I | 100 |
| 1.2 | Part – II: English Paper-I | 100 |
| 1.3 | Literary Forms | 100 |
| 1.4 | Elizabethan Literature | 100 |
| 1.5 | Restoration Literature | 100 |
| **II YEAR** | | |
| 2.1 | Part - I: Tamil/ Hindu Paper-II | 100 |
| 2.2 | Part – II: English Paper-II | 100 |
| 2.3 | Romantic Literature | 100 |
| 2.4 | Victorian Literature | 100 |
| 2.5 | Indian English Literature | 100 |
| **III YEAR** | | |
| 3.1 | Shakespeare | 100 |
| 3.2 | Modern and Post-Modern Literature | 100 |
| 3.3 | American and Commonwealth Literatures | 100 |
| 3.4 | English for Competitive Examinations | 100 |
| 3.5 | Introduction to Mass Communication | 100 |
| | **Total** | **1500** |

## Paper 1.3 : LITERARY FORMS

UNIT I

| | | |
|---|---|---|
| Poetry | : | Lyric – Ode – Sonnet – Elegy – Epic – Ballad – Mock epic – Satire – Idyll. |

**UNIT II**

| | | |
|---|---|---|
| Drama | : | Tragedy – Comedy – Tragi-comedy – Farce – Masque – One-act play – Absurd drama – Melodrama. |

**UNIT III**

| | | |
|---|---|---|
| Novel | : | Historical – Social – Picaresque – Regional novel – Sentimental – Psychological – Epistolary – Gothic – Detective – Dramatic – Science fiction. |

**UNIT IV**

| | | |
|---|---|---|
| Essay | : | Aphoristic – Character – Critical – Periodical – Personal – 20th Century essay. |

| | | |
|---|---|---|
| **UNIT V** | : | Short story – Biography – Autobiography. |

## Paper 1.4 : ELIZABETHAN LITERATURE

Though named Elizabethan literature this paper will survey a hundred years of British prose, poetry and drama written during 1560 – 1660 convening the Elizabethan, Jacobean, Caroline and the pre-Restoration years.

Unit I will discuss the social, political and historical environment of England during 1560-1660. Unit II will survey Elizabethan poetry. Unit III will survey Jacobean and pre-Restoration poetry. Unit IV will survey prose and Unit V drama of the periods. The discussion will be completely text-based

UNIT I

Chapters VI, VII and VIII in G.M. Trevelyan's social History of England, Orient hangman, 1944; with emphasis on Spanish Armada, Elizabethan patronage for art, Black Death, autocracy of chilies I and the civil war.

UNIT II

| | | |
|---|---|---|
| Edmand spenser | : | Prologue to faerie queene |
| Sir Philip Sidney | : | The nightingale |
| William Shakespeare | : | When to the sessions of sweet silent thought |
| Thomas Nashe | : | A Litany in time of Plague |

UNIT III

| | | |
|---|---|---|
| John Donne | : | The funeral |
| Robert Herrich | : | Delight in Disorder |
| George Herbert | : | The Pulley |
| Andrew Marvel | : | To his coy Mistress |

UNIT IV

| | | |
|---|---|---|
| Bacon's Essays | : | Of Truth – Of Nobility – Of Revenge – Of Ambition – Of Simulation and dissimulation |
| Thomas mone | : | Utopia |

UNIT V

| | | |
|---|---|---|
| Christopher Marlouse | : | Edward II |
| Ben Johnson | : | The Alchemist |
| Thomas Dekkar | : | The shoemather's Holiday |

(Note : All the prescribed poems in Units II & III are collected in David Green's The winged wond, Macmillan, 1974)

# Paper 1.5 : RESTORATION LITERATURE

This paper will survey the literary trends and the neo-classical movement, through the poems, prose and plays written during the Restoration and the post – Restoration years.  The discussion will be text-based.

Unit I will discuss the socio-historical atmosphere of Restoration England.  Unit II will survey Restoration poetry and unit III post-Restoration poetry;  Unit IV  will survey prose and Unit V drama of the periods.

## UNIT I
Chapter IX in G.M. Trevelyan's social History of England, orient hangman. 1944; with special emphasis on the Restoration period, with charles II as the king as the most peaceful period in England.

## UNIT  II
| | | |
|---|---|---|
| John Milton | : | L'Allegro gl penseroso |
| John Dryden | : | A song for St. cecilia's Day |
| Alexander Pope | : | The protrait of Atficus from Am Epistle to Arbuthonot |

## UNIT  III
| | | |
|---|---|---|
| Thomas Gray | : | Elegy written in a country churchyard |
| William Collins | : | Ode to Evening |
| **William couper** | : | The costaway |
| William Blake | : | The Lamp – The Tiger |

## UNIT IV
| | | |
|---|---|---|
| Addison and  Steele | : | The spectator papers: Popular superstitions False Wit and Humor Sir Roger at Home Sir Roger at the ASSIZEES  Visit to Westminster Abbey Sir Roger at the Theatre Death of Sir Roger |
| Henry Fidding | : | Joseph Andrews |

## UNIT V
| | | |
|---|---|---|
| Richard Sheridan | : | The school for scandal |
| Oliver Goldsmith | : | She strops to conquer |

## Paper 2.3 : ROMANTIC LITERATURE

UNIT I                    :    The romantic Movement in England – The writing of Lyrical Ballads – Concepts of nature, reason and imagination – The return to nature, realism, introversion – The popularity of the lyric and ode – The decline of drama – The theory of poetic diction – Women's writing – The spread of education – The historical novel.

**UNIT II**
Thomas Gray               :    Elegy Written in a Country Churchyard
Robert Burns              :    Highland Mary
William Blake             :    The Tyger

**UNIT III**
Wordsworth                :    Ode: Intimations of Immortality – Milton, Thou Shouldst be living at this hour!
Coleridge                 :    The Rime of the Ancient Mariner

**UNIT IV**
Shelley                   :    Ode to the West Wind – Ode to the Skylark
Keates                    :    Ode to a Nightingale – Ode on a Grecian Urn

**UNIT V**
Oliver Goldsmith          :    The Vicar of Wakefield
Scott                     :    Talisman
Jane Austen               :    Emma

### Paper 2.4 : VICTORIAN LITERATURE

| | | |
|---|---|---|
| UNIT I | : | Social, Political, Economic, Religious and Literary tendencies of Victorian Age. |

**UNIT II**

| | | |
|---|---|---|
| R. Browning | : | Andrea Del Surto |
| Tennyson | : | Ulysses |
| M. Arnold | : | Scholar Gypsy |
| G.M. Hopkins | : | The Wreck of Deutschland |
| L.B. Yeats | : | Sailing to Byzantium |
| T.S. Eliot | : | The Waste Land |

**UNIT III**

| | | |
|---|---|---|
| M. Arnold | : | The Study of Poetry |
| T.S. Eliot | : | Tradition and Individual Talent |

**UNIT IV**

| | | |
|---|---|---|
| Dickens | : | Great Expectations |
| Hardy | : | Tess of the D'urbervilles |
| D.H. Lawrence | : | Sons and Lovers |
| James Joyce | : | Portrait of the Artist as a young man |

**UNIT V**

| | | |
|---|---|---|
| T.S. Eliot | : | Murder in the Cathedral |
| Bernard Shaw | : | Pygmation |
| Synge | : | Riders to the Sea |
| Oscar Wilde | : | The Importance of Being Earnest |

## *Paper 2.5 : INDIAN ENGLISH LITERATURE*

UNIT I

| | | |
|---|---|---|
| Jawaharlal Nehru | : | Discovery of India (Ed. by C.D.Narasimiah, Macmillan) |
| Swami Viekananda | : | Address at the Parliament of World Religious |

**UNIT II**

| | | |
|---|---|---|
| Toru Dutt | : | Our Casuarina Tree |
| Tagore | : | Heaven of Freedom |
| Sri Aurobindo | : | Satyavan and Savitri |
| Nissim Ezekiel | : | Night of the Scorpion |
| Kamala Das | : | An Introduction |

**UNIT III**

| | | |
|---|---|---|
| Mulk Raj Anand | : | Untouchable |
| R.K. Narayanan | : | The English Teacher |

**UNIT IV**

| | | |
|---|---|---|
| Kamala Markandaya | : | A Handful of Rice |
| Anita Desai | : | Fire on the Mountain |

**UNIT V**

| | | |
|---|---|---|
| Vijay Tendulkar | : | Silence! The Court is in Session! |
| Girish Karnard | : | Tughlaq |

## *Paper 3.1 : SHAKESPEARE*

| | | |
|---|---|---|
| UNIT I | : | Midsummer Night's Dream – Does you like it. |
| UNIT II | : | Richard II |
| UNIT III | : | Julius Ceasar |
| UNIT IV | : | *Winter's Tall* |
| UNIT V | : | Shakespeare's stage, theatre, audience – Shakespeare's comedy, tragedy, fools, clowns, songs and music – Women characters and Shakespearean criticism. |

## Paper 3.2 :  MODERN AND POST-MODERN LITERATURE

UNIT I

| Poetry | : | W.B. Yeats | : | A Prayer for my Daughter – The Second Coming |
| | | T.S. Eliot | : | Journey of the Magai |
| | | W.H. Auden | : | Unknown Citizen |
| | | Seamus Heaney | : | Death of a Naturalist |

UNIT II

| Drama | : | Ibsen | : | A Doll's House |
| | | Beckett | : | Waiting for Godot |

UNIT III

| Novel | : | Virginia Woolf | : | Mrs. Dalloway |
| | | George Orwell | : | Animal Farm |

UNIT IV

| Novel | : | Salman Rushdie | : | Midnight's Children |
| | | Murray Leinster | : | Sidewise in Time |

UNIT V

| Prose | : | World Famous Speeches |

# Paper 3.3 : AMERICAN AND COMMON WEALTH LITERATURES

In this paper, the major concern will be to make the learners feel the evolution of "district" American and common wealth literatures in English.

Units I & II will survey American and common wealth poetry respectively. Unit III will introduce the students to prose and short Fiction. Unit IV to Fiction and Unit V to drama of both literatures.

## UNIT I
| | | |
|---|---|---|
| Walt Whitman | : | Crossing Booklyon Feory |
| Robert Frost | : | Mending Wall |
| Wallace Stevens | : | The Emperor of Ice Cream |
| Marianne Moore | : | Poetry |
| Sylvia Plath | : | Mirror |

## UNIT II
| | | |
|---|---|---|
| **A.J.M smith** | : | Like an old proud king in a parable |
| Judith Wright | : | The harp and the King |
| Derell Walcott | : | A Far cry from Africa |
| Chinna Achebe | : | Refugee Mother and Child |
| Jean Arasanayagan | : | In the month of July |

## UNIT III
| | | |
|---|---|---|
| R.W .Emerson | : | The American scholar |
| Irving Babbitt | : | The Gitic and American life |
| Katherine Mansfield | : | Bliss |

## *UNIT IV*
| | | |
|---|---|---|
| Ernest Hemingway | : | *The old man and the Sea* |
| Patrick White | : | Voss |
| Margaret Atwood | : | **The Blind Assassins** |

## UNIT V
| | | |
|---|---|---|
| Eugene O'Ncill | : | The Emperor Jones |
| Wole Soyimha | : | The lion and the Jewel |
| Sharon Pollock | : | Blood Relations |

## Paper 3.4: ENGLISH FOR COMPETITIVE EXAMINATIONS

**UNIT I**
Basics of English: Sentence, clause, phrase, word, morpheme.
Tenses: Importance – Uses – Kinds of tenses.
Voices: Passive voice – Active voice – Interpersonal passive voice.
Degrees of Comparison – 4 types.
Transformation of sentences.
Punctuation: Meanings – Importance – Marks of punctuation – Uses of punctuation – Use of capital letters.

**UNIT II**
Precis writing – Note making.

**UNIT III**
Paragraph writing – Essay writing.

**UNIT IV**
Comprehension – Letter writing – Report writing.

**UNIT V**
Words often confused – Abbreviations – Use of appropriate tense forms – Use of one word substitution – Use of correct spelling.
Synonyms and antonyms – Match words with their meanings – Spotting common errors in English grammar – Appropriate use of propositions.

**UNIT VI**
Conversions of diagrams into literal language – Word formation – Idioms and phrases – Intelligence test.

**REFERENCE BOOKS :**
1. Bhatnagar B P & Rajul Bhargava, English Competitive Examinations, Macmillan India Ltd.
2. Bank Probationary Officers Competitive Examinations, Rose Publications.

## Paper 3.5: INTRODUCTION TO MASS COMMUNICATION

**UNIT I**

Mass Communication – Definition, need, significance – Types – Concepts – Mass Media – Types and features.

**UNIT II**

Journalism – Journalist functions – Newspaper departments and its functions – News agencies.

**UNIT III**

Broadcasting Journalism – Television and its programmes – Radio and its programmes – Films.

**UNIT IV**

Uses and misuses of media in modern society – Government control and Regulatory measures.

**UNIT V**

Mass Communication Training – Institutions – Future of mass communication.

**REFERENCE BOOKS :**
1. B.M. Ahuja – Theory and Practice of Journalism.
2. Emery, Agee, Ault – Introduction to Mass Communication.
3. Spencer Crump – Fundamentals of Journalism.

**Course** : **One year Additional Degree in English**

Mode : Distance Education

Eligibility : Any bachelor degree (10+2+3) with Part I & II Languages

COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Code No. | Subjects | Marks |
|---|---|---|
| 1 | Literary Forms | 100 |
| 2 | Elizabethan Literature | 100 |
| 3 | Restoration Literature | 100 |
| 4 | Romantic Literature | 100 |
| 5 | Victorian Literature | 100 |
| 6 | Indian English Literature | 100 |
| 7 | Shakespeare | 100 |
| 8 | Modern and Post-Modern Literature | 100 |
| 9 | American and Commonwealth Literatures | 100 |
| 10 | English for Competitive Examinations | 100 |
| 11 | Introduction to Mass Communication | 100 |
| | Total | 1100 |

**Note:** Syllabi from 1 to 11, as mentioned in B.A.(English).

Refer pages from 38 - 48

**Course** : **B.A. (History)**

Mode : Distance Education

Duration : Three Years

Eligibility : Pass in Higher Secondary / 3 year Diploma

Medium : English and Tamil

COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|---|---|---|
| *I YEAR* | | |
| 1.1 | Part – I : Tamil/ Hindi Paper-I | 100 |
| 1.2 | Part – II: English Paper-I | 100 |
| 1.3 | History of India(Beginning to 1707 AD) | 100 |
| 1.4 | History of India (1707 AD to 1947 AD) | 100 |
| 1.5 | Principles of Economics | 100 |
| *II YEAR* | | |
| 2.1 | Part - I: Tamil/ Hindi Paper-II | 100 |
| 2.2 | Part – II: English Paper-II | 100 |
| 2.3 | History of Europe(1453 AD to 1789AD) | 100 |
| 2.4 | History of Europe(1789 AD to 1945 AD) | 100 |
| 2.5 | Contemporay Political System | 100 |
| *III YEAR* | | |
| 3.1 | History of Tamil Nadu(Beginning to 1947AD) | 100 |
| 3.2 | History of Russia | 100 |
| 3.3 | International Relations(from 1914 AD till present) | 100 |
| 3.4 | Tourism Management | 100 |
| 3.5 | Computers and Data Processing | 100 |
| | **Total** | **1500** |

# Paper 1.3 History of India (Beginning to 1707 A.D.)

**Unit I**

Geographical features –Imapact of geography on Indian History –Races-Languages –Unity and Diversity and Sources of ancient Indian History-Indis Valley and Later Vedic Civilization.

**Unit II**

Rise of Buddhism and Jainism-The doctrines-Progress and decline-Asoka the great-His achievements-The Mauryan administration-Social and economic condition-Decline of the empire.

**Unit III**

Samtra Gupta-His carrier and achievements –The administration under the guptas-Social and economic condition-The golden age –The decline-Harsha Vardhana-His achievement-Social and economic condtion under his rule-Estimate.

**Unit IV**

The foreign invasions-Arab conquest of sind-Mahmud of Ghazni-Mahmud of Ghor-Establishment of the Delhi Sultanate-Kutbuddin Aibak-Alauddin Khilji-Mohamad-Bin Tuqlag-Ibrahim Lodi-Administration –Dovisl and economic condition –Downfall-Bhakthi movement-Vijayanagar Empire-Origin-Krishnadevaraya-His achievements-The battle of Talaikotta-Administration-Art and Architecure-Social and economic condition.

**Unit V**

The establishmet of MUghal rule-Babur-Sher Shah-Akbar-Shahjajan-Aurangazeb-Administration under the mughals-Religious condition-Art and literature-Social and economic condition-Downfall of the Mughal empire-The Marathas-Shivaji-carrer and achievements.

**MAPS**

1. Sites of the Indus Valley civilization.
2. Asoka,s Empire.
3. The Gupta Empire.
4. Harsha,s Empire
5. Akbar's Empire

**Reference Books:**

1. Sathianatha Iyer R, Political & Cultural History of India(Volumes I and II)
2. Nilakanta Sastri KA, Advanced history of India.
3. Ishwari Prasad, A Short History of Muslim Rule in India
4. Mahajan VD, Ancient India.
5. Srivastava AL, The Sultanate of Delhi.
6. Vincent Smith, The Oxford History of India.

# Paper 1.4 History of India(From 1707 to 1947 A.D.)

**Unit I**

Later Mugal-maratha confederacy-Rise of Maratha power-Third Battle of Panipat.

**Unit II**

The advent of the Europeans-The Portuguese-The Dutch-The French-The English-The Anglo-French rivalry in the Carnatic-The rise of British power-Robert Clive-The administration- Warren Hastings-Lord Cornwallis-Lord Wellesley-Lord Hastings-Lord William Bentinck-Lord Dalhousie.

**Unit III**

The revolt of 1857- The Causes-Results-The firsh phase of freedom struggle-The Indian National Congress-The moderated-The rise of extremists-The partiotion of Bengal-The Home Rule Movement-some personalities.-Tilak,Gokale, Lajpat Rai, VO.Chidambaram-Impace of the First World War.

**Unit IV**

The Second phase-Jallianwalabagh tragedy-Non cooperation movement-The Swarajist Part-The civil disobediene movement-The Second World War – The Quit India Movement-The partition and Independence-Some personalities-Motilal Nehru, Mohamed Ali Jinna, Jawaharlal Nehru, Mahatma Gandhi and Rajaji.

**Unit V**

Social reform under the British-Economic condition of the people-Religious and social condition-Development of education-Growth of Local self-government of education.

**MAPS**
1. Early European Settlements
2. Centres of 1857 Revolt
3. India at the time of Independence
4. India after Independence

**Reference Books**
1. Sathianatha Iyer, Political & Cultural History of India(Volumes II and III)
2. Roberts, PE, British India
3. Majumdar RC, Advanced History of India.
4. Srivastava, The Mughal Empire.
5. Rajayya, K History of Freedom Struggle.

# Paper 1.5 Principles of Economics

**Unit I**

Introduction-Nature and scope of economics-Definition of economics –Economics laws-Methods of economic analysis.

**Unit II**

Consumption utility-Law of diminishing marginal utility-Equimarginal utility-Demand-Law of demand-Elasticity of demand-Indifference curve ananlysis-Consumer's surplus.

**Unit III**

Production-Factors of production-Laws of returns-Theories of population-Matlthusian and optimum theories-Division of labour –Capital formation-Functions of an entrepreneur-Internal and external economics-Cost of production-Average and marginal cost.

**Unit IV**

Exchange (Theroy of Product Pricing) –Market average revenue and marginal revenue-Law of supply-Marshall's time analysis – perfect competition-Price determination-Monopoly-Discriminating monopoloy-Monopolistic competition-Selling cost- Oligopoly.

**Unit V**

Distribution (Theory of Factor Pricing)-Marginal productivity theory of distribution –Ricardian theory of rent-Quasi rent-Theories of wages-Trade union and wages-Theories of interest-Theories of profit.

**Reference Books:**
1. Dewelt KK, Modern Economic Theroy.
2. Sundaram KPM, Priciples of Economics
3. Dr.Sankaran, Ecomomics,.
4. Watson, Price and its applications.

# Paper 2.3 History of Europe(From 1456 to 1789 AD.)

**Unit I**

Europe at the end of the middle ages-Renaissance in Europe-Results –Maritime and discoveries of the 15<sup>th</sup> and 16<sup>th</sup> centuries- Indian wars-Holy Roman Emperor-Charles V-Carrer and achievements.

**Unit II**

The reformation in Germany-Other countries-The counter Reformation-Effects-Philip II of Spain – Internet and foreign policies-Dutch war of Independence-Decline of Spain.

**Unit III**

France under Henry IV-Reforms –Louis XIII-The Thirty Year's War –Treatise of Westphalia.

**Unit IV**

Rise of Russia-Peter, the Great-Catherine II-Partition of Poland-Russia's war with Turkey-Louis XIV-Domestic and foreign policies.

**Unit V**

Rise of Prissis-Frederick, the Great –His wars-Maria Theresa-War of Australian Succession-Diplomatic revolution- The seven years war-Joseph II of Austria-Louis XV and Lousi XVI-French revolution-Causes-Courses and results.

**Reference Books**
1. Grant AJ, History of Europe.
2. Fisher HAL, History of Europe.
3. Hayes and Moon, Ancient and Medival History.
4. Soputh Gate, A Text book of Modern European History.

# Paper 2.3 History of Europe(From 1456 to 1789 AD.)

**Unit I**

Europe at the end of the middle ages-Renaissance in Europe-Results –Maritime and discoveries of the $15^{th}$ and $16^{th}$ centuries- Indian wars-Holy Roman Emperor-Charles V-Carrer and achievements.

**Unit II**

The reformation in Germany-Other countries-The counter Reformation-Effects-Philip II of Spain – Internet and foreign policies-Dutch war of Independence-Decline of Spain.

**Unit III**

France under Henry IV-Reforms –Louis XIII-The Thirty Year's War –Treatise of Westphalia.

**Unit IV**

Rise of Russia-Peter, the Great-Catherine II-Partition of Poland-Russia's war with Turkey-Louis XIV-Domestic and foreign policies.

**Unit V**

Rise of Prissis-Frederick, the Great –His wars-Maria Theresa-War of Australian Succession-Diplomatic revolution- The seven years war-Joseph II of Austria-Louis XV and Lousi XVI-French revolution-Causes-Courses and results.

**Reference Books**
1. Grant AJ, History of Europe.
2. Fisher HAL, History of Europe.
3. Hayes and Moon, Ancient and Medival History.
4. Soputh Gate, A Text book of Modern European History.

# Paper 2.4 History of Europe (From 1789 to 1945 AD)

**Unit I**

Napoleon Bonaparte-Civil administration-Wars-Continental system-Failure-The Congress of Vienna-The Holy alliance-Concrete of Europe-Revolutions of 1830 and 1848 – Napoleon III-Achievements-National movement in Europe –Unification of Italy-Unification of Germany-Bismarck-Carrier and achievements.

**Unit II**

The eastern question-The Greek War of Independence – The Turko-Egyptian War-The Crimean War-The Russo-Turkish War-The Young Turk Movement-The Balkan Wars-The First World War-Causes _Course-Results-The Paris Conference-The Peace Treaties-The 14 principles of Woodrow Wilson.

**Unit III**

The Russian Revolution of 1917-Causes –Courses-Results-Lenin.

**Unit IV**

The League of Nations-Structure-Functions-Achievements-Failure-The rise of Nazism in Germany-The rise of Fascism in Italy-Rome-Berlin-Tokyo axis.

**Unit V**

The Second World War-Causes-Courses-Results-Peace Settlement-The U.N.O.-Organizational aspects-Achievements and failure.

**Reference Books**.
1. Grant AJ, History of Europe.
2. South Gate, A Textbook of Modern European History.
3. Ketelby C.D.H.History of Modern European from 1789.

# Paper 2.5 Contemporay Political Systems
## (U.K., U.S.A., France and Swiss)

**Unit I**

Constitution-Classificaton of the constitution –Written-Unwritten Rigid-Flexible-Typology of Governments:Parliamentary-Presdential-Quasi Presidential-Council form-Assembly form.

**Unit II**

Legislators of U.K. U.S.A., France and Switzerland

**Unit III**

Executives of U.K. U.S.A., France and Switzerland

**Unit IV**

Judiciary of U.K. U.S.A., France and Switzerland

**Unit V**

Political parties-Pressur Groups-Direct Democracy and representation-Democracy.

**Reference Books.**
1. Jhari JC, Comparative Government and Politics.
2. Blondel S.Comparative Government

# Paper 3.1 History of Tamil Nadu(Beginning to 1947 AD)

**Unit I**

Sources for the study of Tamil Nadu-Sangam age-Social and economic conditions-Religion-The Kalabhras-The early Pandyas.

**Unit II**

The imperial Cholas-Raja Raja I-Rajendra I-Achievements-Administrarion-Development of Art and Architecture-Chalukya-Cholas-Kulothunga I –Kulothunga III – Achievements-Development of Literature-The later Pandyas.

**Unit III**

Muslim invasion-Madurai Sultante-Social and economic condition – The Nayaks-the Nayaks of Madurai, Senji and Tanjore-Administration of palayam.

**Unit IV**

The beginning of European influence –The Protuguese-The Dutch-The Danes-The English –The French-The Anglo-French rivalry-Anglo Mysore wars- The administration of the Nawabs-The Anti-British rebellions- The Poligar rebellion verapandya Kattabomman-The South Indian rebellion –Causes –Courses-Results-The Vellore Mutiny.

**Unit V**

The British Administration-The introduction of English education-The development of Tamil-The rise of political parties-The rise and fail on the Justice party-The self respect movement- The role of Tamil nadu in freedom struggle-The early phase –V.O.C. Subramannia Bharathi- Vanchinathan-Subramania Siva-The later phase-Rajaji, Sathiamurthy, Kamaraj.

**Reference Books**:
1. Subramanina N.History of Tamil Nadu.
2. Rajayyar K.History of TamilNadu.
3. Sathyanatha Iyer, History of the Nayaks of Madurai

# Paper- 3.2 History of Russia(From 1800 to 1970 AD.)

**Unit I**
Alexander I –Napoleonic invasion-Vienna Conference-Domestic Policy.
**Unit II**
Nicholas – I (1825-1855)
**Unit III**
Alexander (1855 – 1881)
**Unit IV**
Alexander II (1881- 1894)
**Unit V**
Nicholas – II (1894-1917)
**Unit VI**
Russian Revolution-Causes –Courses-Results.
**Unit VII**
Social and cultural conditions in the beginning of the 20$^{th}$ century.
**Unit VIII**
Vladmir Ilichuliyanov Lenin-New economic policy.
**Unit IX**
Joseph Stalin
**Unit X**
Cold War-Russia-India Relationship –soviet –Sino relations.
**Unit XI**
Khrushev
**Unit XII**
Brenzhenev(1964-1982)
**Unit XIII**
Gobarchev(1985-1991)
**Unit XIV**
Disintegration –Boris Elstrin
**Unit XV**
Nicholas-II(1894-1917)

# Paper 3.3 International Relations(From 1914 till Present)

**Unit I**

The First world war-Causes-Courses and Results-Peace treaties-Treaty of Versailles and other treaties-League of Nations-Wilson's fourteen points-Security and disarmament –Locorno-Kellog Briand Pact.

**Unit II**

German revival-Rise of Hitler=Rise of Fascism in Italy-British foreign policy-Russion foreign policy-U.S,.Foreign policy-Rise of Japan-Rise of Chienese nationalism-Rome-Berlin-Tokyo Axis.

**Unit III**

The middle east nationalism –Zionism and the Arab-The second World war-Causes-course and resuts – U.N.O.- organs-specialized agencies – cold war – NATO – SEATO –CEATO – Realtions between U.S. and U.S.S.R.

**Unit IV**

The awakening of Asia-The awakening of Africa-The common wealth of nations-India's foreign policy – Post-war Disrmament problem – Sino-Soviet Cold War.

**Unit V**

The problem of World peace – Role of Middle ease oil in world politics – globalization.

**Reference Books**.
1. Adam RG, A History of the Foreign Policy of the United Nations.
2. South Gate, A Textbook of Modern European History
3. Mahajan, International Relations.
4. Mahajan, VD, International Relations.

# Paepr 3.4  Tourism Management

**Unit I**

Definition of Tourism-Defined by various factors and agencies-Types forms and volume of tourism

**Unit II**

Tourism through the ages – Tourism in ancient times – Tourism in middle ages – Toursim and induistrial revolution – Tourism in modern period – Between two world wars – Tourism in contemporary period – World Toursim – Organisation (WTO)- Pacific Area Travel Association (PATA).

**Unit III**

Development of modern tourism – Economic and social factors – Progress in transport and technology – Promotion of tourism – Advertising – Public relations – Evolution of modern trends.

**Unit IV**

Economic importance of tourism – Tourism as an economic activity – Internal – Tourism and international trade – Tourism as an instrument of achieving economic gain – cultural and social aspect.

**Unit V**

Toursim of India – A land for all seasons – Development of tourism in India – The Sargeant Committee – tourism information offices – Ministry of Torusim – The role of Indian Tourism Development Corporation – Cultural tourism in India.

**Reference Books**:
1. Bhatia AK, Tourism Development – Principles and Practice.
2. Prem Nath Seth, Successful Tourism Management.
3. George Young, Tourism – Blessing or Blight.
4. Mahaja VD, International Relations.

# Paper 3.5 Computers and Data Processing

**Unit I**

Computer System fundamentals: Hardware – Software – evolution of computers – Classifications- Basic components of a digital computer – Internal and Auxilary storages – Remote data entry devices – characteristics of internal storage – Auxilary storage – Processing methods – Batch, real time and time-shared processing.

**Unit II**

Data processing systems and tools:Types of data processing system – Extend of data processing system – Data processing cycle – Components of a data processing system – Problem definition – Planning – Algorithm – Program flowcharts – Decision table – Top-Down programming techniques – Structures programming.

**Unit III**

Batch Processing: A typical batch processing application – Master file – Transaction file – File update – Direct access storage and retrieval – File organization techniques – Report generation – Examples of flow charts and programs for the above functions.

**Unit IV**

Applications:Inventory control and accounting – Payroll – Production planning and control.

**Unit V**

Interactive Processing: On-line processing controls – Examples of specific on-line applications – Airline reservation – Railway reservation – Management of stores – Query packages – Real time business applications.

**Reference Books:**

1.Wilson T, Price, Third Edition, Holt-Saunders, Introduction to Computer Data Processing, International Editions.
2. Robert J, Verzello and John reutter III, Data Processing Systems and Concepts, McGraw Hill International Book Co.
3. Carol Beech and Janice Burn, Applications in Business Data Processing, Pitman Publishing Ltd.,
4. William F, Fouri and Lawrence J.Aifiero, Computers and Information Processing, Prentice Hall (1986)

**Course** : **B.A. (Public Administration)**

Mode : Distance Education

Duration : Three Years

Eligibility : Pass in Higher Secondary / 3 year Diploma

Medium : English and Tamil

COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|---|---|---|
| *I YEAR* | | |
| 1.1 | Part – I : Tamil/ Hindi Paper-I | 100 |
| 1.2 | Part – II: English Paper-I | 100 |
| 1.3 | Business Communication | 100 |
| 1.4 | Principles of Management | 100 |
| 1.5 | Administrative Organisation | 100 |
| *II YEAR* | | |
| 2.1 | Part - I: Tamil/ Hindi Paper-II | 100 |
| 2.2 | Part – II: English Paper-II | 100 |
| 2.3 | Administrative Thinkers | 100 |
| 2.4 | Public Personnel Administration | 100 |
| 2.5 | Contemporary Political System | 100 |
| *III YEAR* | | |
| 3.1 | Development Administration in India | 100 |
| 3.2 | Computers and Data Processing | 100 |
| 3.3 | Public Financial Administration | 100 |
| 3.4 | Indian Administration | 100 |
| 3.5 | Local Bodies in India | 100 |
| | **Total** | **1500** |

# Paper 1.3: BUSINESS COMMUNICATION

UNIT I

Essential of Communication – Basics of English grammar – Structure of business letters.

**UNIT II**

Drafting of different types of business letters – Letter of Enquiry – Offers and quotations – Orders – Trade references and status enquiries – Confirmation and Insurance letter.

**UNIT III**

Collection letters – Sales letters – Agency letters – Banking letters – Insurance letters.

**UNIT IV**

Drafting of minutes – Drafting of reports and office notes – Drafting of shorts speeches – Drafting of indemnity bond, affidavits and simple sale agreement.

**UNIT V**

Application for employment and bio-data preparation – Writing of essays relating of agriculture, industries, banking and planning.

**REFERENCE BOOKS:**
1. Gartside L, Bahl & Nagammiah, and McComas, Satterwhite, Modern Business Correspondence
2. Majumdar, Commercial Correspondence.
3. Reddy and Appannaiah, Rajendra Pal and Korlahalli JS, Essentials of Business Communication.

# Paper 1.4: PRINCIPLES OF MANAGEMENT

**UNIT I**

Management: Concept – Nature – Importance – Modern Management approaches.

**UNIT II**

Planning: Nature and importance – Forms – Strategic and tactical – Types of plan – Steps in planning decision making – Types of decisions – Decision making process – Rationality in decision-making.

**UNIT III**

Organization: Process of organization – Organization structure – Departmentalization – Span of Management – Delegation – Authority – Responsibility – Accountability – Decentralization.

**UNIT IV**

Directing: Principles – Elements – Motivation – Maslow, Herzberg, Vroom models – Communication: Process – Forms – Barriers – Overcoming barriers – Leadership theories – Styles – Managerial grid – Coordination – Meaning – Need – Types.

**UNIT V**

Control – Need for control – Control process – Control techniques.

**REFERENCE BOOKS:**
1. Prasad LN, Reddy and Appanniah, Essentials of Management.
2. Lallan Pradad, Koontz and O'Donnel, Essentials of Management.

# Paper 1.5: ADMINISTRATIVE ORGANISATION

**UNIT I**

Meaning, nature and scope of public administration – Evolution of the study of public administration – Politics and public administration – Public and private administration.

**UNIT II**

Organization – Formal and informal – Principles of organization.

**UNIT III**

Structure of organization – Bases of organization – Units of organizaion – Departmental organization.

**UNIT IV**

Theories of organization – Classical theory – Scientific management theory – Bureaucratic theory – Human relations theory – Behavioral theory and systems theory.

**UNIT V**

Organization and methods – Control over public administration – Legislative, executive and Judicial.

**REFERENCE BOOKS:**
1) Avasthi and Maheswari, Public Administration.
2) Sharma MP, Theory and Practice of Public Administration.

# Paper 2.3: ADMINISTRATIVE THINKERS

**UNIT I**
> Woodrow Wilson – F. W. Taylor – Henry Fazol – Max Weber.

**UNIT II**
> Elton Mayo – Rensis Libert – Peter Drucker.

**UNIT III**
> C.I. Barnard, H.A. Simon – Mary Parker Pollet.

**UNIT IV**
> McGryon – Abraham Maslow – Herzberg.

**UNIT V**
> Riggs – Dror.

**REFERENCE BOOKS:**
1. Prasad et.al., Adminstrative Thinkers.
2. Maheswari SR, Adminstrative Thinkers.

# Paper 2.4: PUBLIC PERSONNEL ADMINISTRATION

**UNIT I**

Meaning, Nature and scope of Public Personnel Administration – Position classification – compensation plan.

**UNIT II**

Civil Service – Characteristics – Functions – Bureaucracy – Features Maladies.

**UNIT III**

Recruitment – Problems of recruitment – Civil service Commission – Promotion –Training.

**UNIT IV**

Redressal of Public Grievances – Rights of the Civil Servants.

**UNIT V**

Conduct – Discipline – Morale – Retirement and retirement benefits.

**REFERENCE BOOKS:**
1. Stalin O Glenn, Public Personnel Administration, Harpet & Brothers, New York, 1986.
2. Piffner and Presthus, Public Administration, New York, The Ronald Press Company ,1987.
3. Maheswari SR, Agarwal LN, Public Administration, Agra, 1988.

# Paper 2.5: CONTEMPORARY POLITICAL SYSTEMS
## (U.K., U.S.A., FRANCE AND SWISS)

**UNIT I**

Constitution – Classification of the Constitution – Written – Unwritten – Rigid – Flexible – Typology of Governments: Parliamentary – Presidential – Quasi – Presidential – Council form – Assembly form.

**UNIT II**

Legislators of U.K., U.S.A., France and Switzerland.

**UNIT III**

Executives of U.K., U.S.A., France and Switzerland.

**UNIT IV**

Judiciary of U.K., U.S.A., France and Switzerland.

**UNIT V**

Political Parties –Pressure Groups – Direct Democracy and representation – Democracy.

**REFERENCE BOOKS:**
1.  Jhari JC, Comparative Government and Politics.
2.  Blondel S, Comparative Governments.

# Paper 3.1: DEVELOPMENT ADMINISTRATION IN INDIA

**UNIT I**

Concept of development and development administration – Socio-economic context of development.

**UNIT II**

Policies in land reforms, agriculture, co-operation, education, poverty-alleviation, health and nutrition and urban development and their implementation.

**UNIT III**

Machinery of development planning at the Centre, State and District level.

**UNIT IV**

Panchayat Raj – Structure – Functions – Finances – Administrative Services – Impact on development.

**UNIT V**

Voluntary organizations and development – Role of regional and international organizations in development.

**REFERENCE BOOKS:**
1. Gant, Development Administration.
2. Relevant Issues of the Indian Journal of Public Administration (New Delhi).
3. VA. Pai. Panandikar ed., Development Administration in India.
4. Swerdlow, Development Administration.

# Paper 3.2: COMPUTERS AND DATA PROCESSING

## UNIT I

Computer System Fundamentals: Hardware – Software – Evaluation of computers – Classifications – Basic components of a digital computer – Internal and Auxiliary storages – Remote data entry devices – characteristics of internal storage – Auxiliary storage – Processing methods – Batch, real-time and time-shared processing.

## UNIT II

Data Processing Systems and Tools: Types of data processing system – Extend of data processing systems – Data processing cycle – Components of a data processing system – Problem definition – Planning – Algorithm – Program flowcharts – Decision table – Top-Down programming techniques – Structure programming.

## UNIT III

Batch Processing: A typical batch processing application – Master file – Transaction file – File update – Direct access storage and retrieval – File organization techniques – Report generation – Examples of flow charts and programs for the above functions.

## UNIT IV

Applications: Inventory control and accounting – Payroll – Production planning and control.

## UNIT V

Interactive Processing: On-line processing controls- Examples of specific on-line applications – Air-line reservation – Railway reservation – Management of stores – Query package – Real time business applications.

### REFERENCE BOOKS:

1. Wilson T, Price, Third Edition, Holt-Saunders, Introduction to Computer Data Processing, International Editions.
2. Robert J, Verzello and John Reutter, Data Processing Systems and Concepts, McGraw Hill International Book Co.
3. Carol Beech and Janice Burn, Applications in Business Data Processing, Pitman Publishing Ltd.
4. William F, Fouri and Lawrence J. Aifiero, Computers and Information Processing, Prentice Hall(1986).

# Paper 3.3: PUBLIC FINANCIAL ADMINISTRATION

**UNIT I**

Meaning – Nature and scope of public financial administration – Budget – Principles of budget.

**UNIT II**

Phases of Budgeting – Preparation of the budget – Enactment of the budget – Execution of the budget.

**UNIT III**

Accounting – Audit – Comptroller and Auditor general of India – Separation of Accounts from audit.

**UNIT IV**

Financial Committee – Estimates Committee – Public accounts committee – Committee on Public undertakings.

**UNIT V**

Centre – State Financial relations – Kinds of budget – Performance budgeting – Zero-base – Budgeting – Planning programming budgeting system.

**REFERENCE BOOKS:**
1. Aravinth & Maheswari, Public Administration.
2. Sharma MP, Public Administration.

# Paper 3.4: INDIAN ADMINISTRATION

**UNIT I**

Evolution of Indian Administration – Role of Public Administration in India.

**UNIT II**

Constitutional framework of the Central – President – Council of Ministers – Central Secretariat – Cabinet Secretariat – Prime Ministerial Office – Parliament – Judiciary.

**UNIT III**

Constitutional framework of the State Government – Governor – Council of Ministers – State Secretariat – Chief Secretary – State Legislations – State Judiciary.

**UNIT IV**

Center – State Relations – Legislative relation – Administrative relations – All India Services.

**UNIT V**

Political Executive Vs. Permanent Executive – Specialists Vs. Generalists – Union Public Service Commission – State Public Service Commission.

**REFERENCE BOOKS:**
1. Dr. Maheswari, Indian Administration.
2. Singh & Singh, Public Administration.

# Paper 3.5: LOCAL BODIES OF INDIA

## UNIT I

Historical Setting: Self governing village systems in ancient India – Vedic Period and Chola period – Village as an autonomous self governing unit in Pre-British period and it's decline – British land revenue policy and it's implications.

## UNIT II

Early Experiments in Panchayati Raj: National Priorities in 1947 – Grow more food campaign – Community development programme – National extension scheme.

## UNIT III

Major Committees on Panchayati Raj: Balwantari Metha Committee reports – Ashok Metha Committee report – Experiments in Karnataka on Panchayati Raj – 64th Constitutional Amendment Act and revival of interest in Panchayati Raj.

## UNIT IV

Constitutionalization of Local Bodies : 73rd and 74th Amendment of the constitution of India – Key features.

## UNIT V

Panchayati Raj and National Development: Panchayat Raj and Decentralisation in the context of Economic Liberalisation – Panchayatiraj in operationalising 29 items of Development Activities in 11th Schedule and 18 items of development activities 12th Schedule of the Constitution.

**REFERENCE BOOKS:**
1. B.S. Bhargava & S. Rama Rao, Indian Local Government – A study, Calcutta, Minerva Associates, 1978.
2. M.K. Gandhi, Panchayati Raj, Ahmedabad, Navajivan, 1994.
3. S.S.Meenakshi Sundaram, Decentralisation in Developing Countries, New Delhi, Concept Publishing Co., 1994.
4. Mehta Balwantrai, Report of committee on Panchayat Raj Institutions, Mehta Balwantrai, New Delhi, Ministry of Agriculture and Irrigation, Govt. of India, 1958.

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**Course** : **B.Sc. (Psychology)**
Mode : Distance Education
Duration : Three Years
Eligibility **:** Pass in Higher Secondary /  3 year Diploma

Medium : English

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|---|---|---|
| **I YEAR** | | |
| 1.1 | Part – I : Tamil/ Hindi Paper-I | 100 |
| 1.2 | Part – II: English Paper-I | 100 |
| 1.3 | General Psychology | 100 |
| 1.4 | Social Psychology | 100 |
| 1.5 | Environmental Psychology | 100 |
| **II YEAR** | | |
| 2.1 | Part – I : Tamil/ Hindi Paper-II | 100 |
| 2.2 | *Part – II: English Paper-II* | 100 |
| 2.3 | Abnormal Psychology | 100 |
| 2.4 | Health Psychology | 100 |
| 2.5 | Psychology and Nutrition | 100 |
| **III YEAR** | | |
| 3.1 | Counselling Psychology | 100 |
| 3.2 | Industrial Psychology | 100 |
| 3.3 | Educational Psychology | 100 |
| 3.4 | Marketing and Advertising | 100 |
| 3.5 | Experimental Psychology | 100 |
| | **Total** | **1500** |

## Paper 1.3: GENERAL PSYCHOLOGY

*UNIT I*

Nature of Psychology: Definition – Methods – Work of psychologists - Biology of Behavior – Species – Typical behaviour patterns – Brain and behavior: Neurons and synapses – A guide to the nervous system – Association cortex – Behavior and Experience –Left and right – Hemisphere functions.

*UNIT II*

Sensory Process and Perception: Sensory channels – Sensory processes: Vision – Hearing – Smell – Taste – Skin senses – From sensory process to perception – Perceptual processes: Attention – Form perception – Visual depth perception – Constancy – Movement perception – Plasticity – Individual differences.

*UNIT III*

Principles of Learning: Classical conditioning – Instrumental conditioning – Cognitive learning – Learner and learning: Some things are easier to learn than others.

Memory: Theories about memory – Long-term memory: Organization and processes - Forgetting – Amnesia – Improving your memory.

Thinking and Language: Thinking process – Concepts – Problem solving – Decision making – Creative thinking – Language and communication.

UNIT IV

Motivation: Motives as inferences, explanations, and predictors – Some theories of motivation – Biological motivation – Social motives – Motives to know and to be effective – Frustration and conflict of motives.

Emotion and Stress: Expression and perception of emotions – Physiology of emotion – Stress – Some theories of emotion.

Social Perceptions, Influences, and Relationships: An overview of the area – Social perception – Social influence – Social relationships.

*UNIT V*

Psychological Assessment and Testing: Psychological tests – Nature of intelligence – Assessing intelligence – Individual differences in intelligence – Testing for special aptitudes – Personality assessment – Behavioral assessment.

UNIT VI

Personality: Ways of defining and thinking about personality – Type and trait theories of personality – Dynamic personality theories – Learning and behavioral theories of personality – Humanistic theories: Personality as the self – Issues and controversies in personality theory and research.

**REFERENCE BOOKS:**

1. Ghorpade M B, *Essentials of Psychology*, Bombay: Himalaya Publ, 1977.

2. Hilgard E R, Atkinson R C, and Atkinson R L, *Introduction to Psychology*, 6th edn, Jovanoich: Harcourt Brace, 1971.

3. Morgan C.T, King R A, Weisz J R, and John Schopler, *Introduction to Psychology*, New Delhi: Tata McGraw-Hill Publ. Co. Ltd.

4. Rajamanickam M, *Modern General Psychology*, Agra: H.P.Bhargava Book House, 2000.

## Paper 1.4:  SOCIAL PSYCHOLOGY

**UNIT I**

Scope and Methods of Social Psychology: Field of social psychology – Relation of psychology – Sociology and Anthropology – Practical Vs. Scientific knowledge – Social interaction and social influence and some variables under study – Society and culture – Interpersonal response traits – methods of social psychology – Observation - experiment - correlational method – Situational observation.

Development of Social Behavior: Social behavior of Animal – Social life among insects – Territoriality, Dominance and status – Mammals – Social development in children – Infant social relation in early childhood.

Individual  Society and Culture: The individual – Society – Social reality – Socio-economic status – Closed society and open society and culture primary and secondary groups – Rural and urban language – Child rearing practices – Values.

**UNIT II**

Social Perception: Perceptional process in infancy – Cognitive theories – personal factors- influence of wants and goals.

Person Perception: Nature of person perception – Impression formation – Halo effect – Stereotype – Order effect – Attribution process – Accuracy of judgements – Two traditions of person perception in India.

Language and Communication: Communication behavior – Language and communication-signs, signals and symbols – Language  a cultural product – Meaning of meaning – Language and socialization.

**UNIT III**

Interpersonal Attraction: Sociometry – Theories of interpersonal attraction – Attraction and social interaction.

Social Motivation: Behavior is biogenic and sociogenic – Social drives – Need for affection, dependence, aggression, self-assertion – Achievement motivation – Maslow's theory – Social incentives – Rewards and punishments-praise and reproof – Competition and co-operation.

Social Attitudes: Definition – Components – Beliefs, attitudes and values – formation of attitudes – Measurement – Method of social distance – Thurston's method – Likert's method – Osgood's method of semantic differential – Processes of attitude change – Persuation radicalism and conservatism – Diffusion of innovations – Resistance to change – Attitude and behavior – Theories – Indian studies – Gandhian methods.

## UNIT IV

Formation of Groups: Kinds of groups – Togetherness – Small groups – properties of group – Formal and informal groups – Group structure – Group norms – Experimental studies – Village factions – Group effectiveness, cohesiveness – Reference group – Group morale – Group dynamics.

Conformity and Deviation: Conformity – Deviation – Social mobility – Crime and delinquency.

## UNIT V

Leadership and Social Power: Leadership and dominance – Institutional leaders – Dominant leaders – Persuasive leaders – Expert – Experimental studies – Traits – situational test – Factorial studies – Democratic Vs. authoritarian leaders – Leaders and the led – Theories of leadership – Emerging pattern of rural leadership in India – Social Power – Bases of power – Exchange theory.

Public Opinion, Propaganda and Prejudice: Public opinion – Meaning –Process – Steps in opinion formation – Role of leaders – Gauging public opinion – Survey method – Propaganda – Its relation to education – Language and propaganda – Role of suggestion – Techniques – Prejudice – Characteristics – Growth – Forms of hostile action – Methods to reduce prejudice.

## UNIT VI

Collective Behavior: Mass society – Audience – Mob behavior – Kinds of mobs – Theories of crowd behavior – Rumours and mass hysteria, fads and crazes – Social movements.

Social Change: Definition – Psychological processes involved – Barriers to change – Attitude toward innovation – Values and norms – Problems of motivation.

Social Conflicts and their resolution: Tensions and conflicts – Various problems in Indian society leading to conflicts – Gandhian techniques resolution.

National Integration: Characteristics of a nation – Barriers to the growth of integration – Religion not a factor – Role of social learning.

## REFERENCE BOOKS:

1. Baron R A, and Byrne D, *Social Psychology*, 7th edn, New Delhi: Prentice Hall of India Private Ltd., 1999.
2. Feldman R S, *Social Psychology*, 2nd Edn, New Jersey: Prentice Hall Inc., 1998.
3. Krech D, Crutchfield S and Ballachey E L, *Individual in Society: Text Book of Social Psychology*, Tokyo: Hill Kiogakuha, Ltd.,1962.
4. Kuppuswamy B, *An Introduction to Psychology*, Bombay, Media Promoters & Publishers Pvt. Ltd, 1980.

Paper 1.5: ENVIRONMENTAL PSYCHOLOGY

**UNIT I**

Environmental Psychology: Introduction – Nature – Characteristics – Research – Research methods in environmental psychology – Data collection methods.

Environmental Perception, Cognition and Attitudes: Introduction – Environmental perception conventional approaches to perception – Environmental perception – Movement, habituation and the perception of change – Perception of movement – Habituation or adaptation – Perception of change – Perception of natural cognition and Cognitive mapping – Components of cognitive maps – Familiarity, gender and socioeconomic class – Functions of cognitive maps – Memory and cognitive maps – Cognitive organization of the environment – Assessing the Scenic Environment: Landscape assessment, Aesthetics and preference – Descriptive systems of scenic value – Physical perceptual approach to scenic value – Forming attitudes toward the environment – Classical conditioning of attitudes – Instrumental conditioning of attitudes social learning of attitudes – Measuring attitudes toward the environment: The search for the PEQI – Changing attitudes toward the environment: a prelude – Environmental attitudes predict environmental behavior.

**UNIT II**

Theories of Environment – Behavior Relationships: Introduction – Nature and function of theory in environmental psychology – Environment–Behavior theories: Fledgling theories in a fledgling field – Arousal approach – Environmental load approach – Under stimulation approach – adoption level theory: Optimal stimulation – behavior constraint approach – Barker's Ecological psychology – Environmental stress approach – Environmental Stress: Stress – Characteristics of stressors – Appraisal – Characteristics of the stress response – Natural disaster – Characteristics of natural disasters – Effects of natural disaster – Technological catastrophe – Characteristics of technological catastrophe noise – Defining, measuring, and perceiving noise – Important noise variables – Sources of noise – Psychological effects of noise – Effects of noise on performance – Noise and social behavior – Commuting – Impedance.

**UNIT III**

Weather, Air Pollution, and Behavior: Introduction – Heat and behavior – Perception of and psychological reaction to ambient temperatures – Heat and performance – Heat and social behavior – Cold temperatures and behavior – Cold temperatures and health – Cold extremes and performance – Cold extremes and social behavior – Wind and behavior – Perception of wind – Behavior effects of wind – Barometriuc pressure and altitude – Physiological effects – Acclimatization to high

attitudes – Behavior effects of air pressure performance – Air pollution and social behavior – Integrating weather and pollution effects: A final note.

Personal Space and Territoriality: Personal space – Functions of personal space – Methods for studying personal space – Situational determinants of personal space: Research evidence – Individual difference determinants of personal space: Research Evidence – Interpersonal positioning effects – Spatial zones that facilitate goal fulfillment – Consequences of too much of too little personal space – Consequences of personal space invasion – Territorial behavior: Keep off my turf – Functions of territoriality – Research on territoriality in humans.

**UNIT IV**

Crowding: Introduction – Effects of population density on animals – Psychological consequences of high density for animals – Conceptual perspectives: Attempts to understand high density effects in animals – Effects of high density on humans – Methodologies used to study high density in humans feeling the effects of density: consequences for affect, arousal, and illness effects of density on social behavior – Effects of high density on task performance – Putting the pieces together: Conceptualizations of density effects on humans – Eliminating the causes and effects of crowding – Look to the future.

The City – Perceiving and experiencing the city – Relationship between environmental conditions and imagery – Socioeconomic status and cognitive mapping – Race and cognitive mapping – Gender and cognitive mapping – Relevant experience and cognitive mapping – Effects of urban life on the city dweller: Research evidence – Stress – coping – Affiliative behavior – Performance – Crime – long-term behavioral effects health – Environmental solutions to urban problems – defensible space – Land use – Social factors – Urban renewal – Escaping from the city.

**UNIT V**

Architecture, Design and Behavior: Introduction – Extent of architectural influence – An historical overview – Architectural determinism – Environmental possibilism – Environmental probabilism – Behavior and elements of architectural design – Lighting – Windows – Color – Aesthetics – Furnishings – Privacy – Design process – Congruence – Design alternatives – Stages in the design process – Awareness of design alternatives selection of behavioral criteria – Behaviorally based research – Implementing the design process: models for the future.

Design in Selected Environments: Residential setting – Preferences – use of space in the home satisfaction with the home environment – Propinquity: the effect of occupying nearby territories – Learning environments – Classroom environments – Libraries – Museum environments – Pedestrian environments: Shopping Malls, plazas

and crosswalks hospital setting residential care facilities for the aged – Non institutional residences for the aged.

**UNIT VI**

Environments for Work, Leisure and the Future: Introduction – Work environments – Study the design of the work environment – Designing the office landscape – Personalization – Territoriality and status in the work environment – Leisure and recreation environments – Wilderness and camping areas – Recreation environments affording exercise – Recreational environments for children – Future environments – Living in space – Experimental undersea environments.

Changing behavior to Save the Environment – Environmental psychology and saving the environment – Environmental education – Reinforcement techniques – Positive reinforcement – Encouraging good behavior – Negative reinforcement and punishment – Alternatives to positive reinforcement – Feedback – Letting us know we're doing – Integrating and evaluating the various approaches to eliminating environmentally destructive behavior – approaches to specific environmental problem – Littering – Saving energy at home – Residential energy conservation – Energy conversation and transportation – Vandalism – Curbing environmentally destructive acts – Assessment of the present and the future.

**REFERENCE BOOKS:**

4. Bell P A, Fisher J D and Loomis R J, *Environmental Psychology*, Philadelphia: W.E. Saunders Co., 1978.

5. Fisher J D, Bell P A and Baum A, *Environmental Psychology*, 2$^{nd}$ Edn. NewYork: Holt, Rinchar and Winstorn, 1984.

6. Pajeons J D, *Environment and Behavior*, Massachusetts: Addison and Wesley Publishing Co., 1977.

# PAPER 2.3: ABNORMAL PSYCHOLOGY

**UNIT I**

The Normal and Abnormal : Meaning – Types – Psychoneuroses, psychoses – Mental deficiency – Antisocial personalities – Mental Mechanisms – Types – Mental Symptoms – Disorders of memory – Causes of Abnormal Behaviour – Biological Factors – Psychosocial Factors – Socio – cultural factors – Treatment and outcomes.

**UNIT II**

Neuroses : Basic nature of neuroses – Neurotic nucleus – Neurotic paradox – Neurotic patterns – Anxiety neurosis – Phobic neurosis – Obsessive – compulsive neurosis – Hysterical Neurosis : Convention type – Dissociative type – Hypochondriacal Neurosis : General etiology – Treatment and outcomes.

**UNIT III**

Classification of Psychoses : Schizophrenia, manic – depressive psychosis, paranoia – Causes of Psychoses : Heredity, neurophysiological factors, biochemical factors – Psychological Factors : General socio – cultural factors – Treatment procedures.

**UNIT IV**

Alcoholism and Drug Dependence : Alcoholism : Incidence and social effects of alcoholism – Clinical picture – Phases in alcohol addiction – Treatment and outcomes – Drug dependence: Opium and its derivatives – The barbiturates – Cocaine and amphetamines – Major Hallucinogens : LSD and related drugs – Marijuana.

**UNIT V**

Psychosomatic Disorders : Meaning – Classification – Some specific reaction patterns : Biological factors – Psychological and interpersonal factors – General sociological factors – Treatment and outcomes.

**UNIT VI**

Mental Retardation : Classification and causes – Degrees – Psysiological and psychological causes – Types of mental retardation associated with physiological causes : Down's syndrome (mongolism) – Thyroid deficiency(cretinism)-Cranial anomalies – Phenyl Ketonuria (PKU) – Treatment, outcome and prevention.

**Reference Books:**
1. James D Page, *Abnormal Psychology* , Tata Mc-Graw Hill Pub. Co., Mumbai 1947.
2. James C Coleman, *Abnormal Psychology,* D.B. Jaraporevala Sons, 1972.
3. Irwin G Sarason & Barbara R Sarason, *Abnormal Psychology : The Problem of Maladaptive Behaviour* , Ed.10, Pearson Education, Delhi 2002.
4. Barclay Martin, *Abnormal Psychology : Clinical and Scientific Perspectives,* Holt, Rinchart & Winston, New york , 1977
5. Mangal S K, *Abnormal Psychology,* Sterling Publ., New Delhi , 2005.

**UNIT I**

Health Psychology:  Definition – Need – Functions of health psychologists.

**UNIT II**

Stress:  Definition – Three faces of stress – High-risk behaviours and health-stress models – Symptoms – Sources – Stress coping strategies.

**UNIT III**

Substance Abuse:  Kicking harmful habits: Definition – Abuse dependence and tolerance – Quiting smoking:  The promise of preseverance.

Use and Misuse of Alcohol:  Alcoholism – Definition – Dependence and abuse – Effects of alcohol – Epidemiology of alcoholism – Alcoholism and health risk – Etiology of alcoholism – Clinical treatment.

**UNIT IV**

The Problem of Pain: Headache and low back pain:  Definition and issues – Epidemiology of pain – Problems – Prevalence and costs – The physiology of pain – Etiology of pain – The psychology of pain:  Learning stress and depression – Two pain disorders:  Headaches and low back pain – Treatment of pain.

**UNIT V**

Coping with chronic or catastrophic illness:  Silent killers:  Hypertension – The hurry sickness – Biomedical background – Epidemiology of coronary disease – Unmodifiable risk factors – Modifiable risk factors – Psychosocial factors – Biomedical intervention – Cognitive behavioural programmes.

**UNIT VI**

The Healthy Child:  Healthy lifestyle and prevention – Chronically ill children: Habits – Lifestyle and prevention – Children with asthma – Children with cystic fibrosis – Children with diabetes mellitus – Intervention.

Aging:  Definition – Biology of aging – Lifestyle and aging:  Stress – Nutrition and exercise – Death and dying:  Grief and preparation.

**REFERENCE BOOKS:**

1.  Rice P L, *Health Psychology*, Brooks/Cole Publishing Co., New York, 1998.

2.  Sarafino E P, *Health Psychology*, John Wiley & Sons, Inc, New York, 1990.

# Paper 2.5: PSYCHOLOGY AND NUTRITION

**UNIT I**

Relationship of nutrition to the growth process – Growth cycle – Nutrition in brain development and behaviour – Effects of malnutrition on brain development, production, intellectual development – Environmental enrichment and deprivation.

**UNIT II**

Nutrition in Pregnancy and Lactation:  Nutritional demands of pregnancy – Food selection in pregnancy – Complication of pregnancy involving diet – Diet during labour – Diet following delivery – Diet in lactation.

Nutrition during infancy and early childhood:  Breast feeding – Introduction of solid foods, habits and eating practices – Child nutrition programmes.

Nutrition for older persons:  Nutrition and aging – Dietary intakes and requirements of older people – Community food and nutrition programmes for older people.

**UNIT III**

Behavioural disorders affecting food intake:  Anorexia nervosa and Bulimia:  Pathophysiology – Etiology and pathogenesis – Epidemiology – Diagnosis and treatment.

Under nutrition and mental development:  Influence of early under nutrition on adult intelligence.

Malnutrition:  Identification of nutrition problems – Protein energy malnutrition – Vitamin and mineral deficiencies.

**UNIT IV**

Nutrition in public health and preventive medicine:  Dietary requirements and allowances – Nutritional deficiencies – Causes and consequences – Diet and chronic disease – Dietary recommendations – Barrier to implementation – Contradictions between knowledge of nutrition and behaviour – Assessment nutritional status.

**UNIT V**

Hypertension:  Nutritional aspects and preventable strategies:  Defining HTN – A tricky proposition – Vulnerable groups in India – HTN:  Associated factors – Excess calories – Sodium and potassium intake – Calcium – Fiber – Alcohol – Effect of age on blood pressure – Behavioural aspects – Preventive measures – Adverse effect of excess iron and zinc intake.

**UNIT VI**

Need for nutrition counselling:  Responsibility of the nutrition counselor – Determining the role of the nutrition counselor – Managed vs Client – Managed care – Elements of helping process.

**REFERENCE BOOKS:**

1. Park K, *Park's Textbook of Preventive and Social Medicine*, Ed16, Banarsidas Bhanot Publishers, Jabalpur, 2000.
2. Anderson Dibble, et-al, *Nutrition in Health and Disease.*

# Paper 3.1 : COUNSELLING PSYCHOLOGY

*UNIT I*

Counselling : Meaning and definition – Importance – Merits – Approaches – Special areas in Counselling : Education – Family –Delinquents – Marriage counselling.

## UNIT II

Counselling Process – Steps in counselling process – Psychological Testing and diagnosis – Factors affecting counselling process – Qualities of counsellors.

## UNIT III

Counselling Interview – Essential aspects – Counsellor – Counselee relationship – Interview techniques – Structuring the counselling relationship.

## UNIT IV

Group Counselling: Meaning – Types of groups – Value of group counselling – Process of group Counselling – Assumptions and limitations of group counselling – Individual counselling - Meaning – Similarities and Dissimilarities between Individual and group counselling.

## UNIT V

Professional Training for counselling – Counsellor preparation and professional issues – Academic preparation – Practical skills – Selection and training of counsellors.

## UNIT VI

Modern trends in Counselling – Counselling and Psychotherapy – Trends in counselling – Career guidance – Ethical and Legal considerations in counselling.

**REFERENCE BOOKS :**

1. Narayana Rao S, *Counselling Psychology,* Tata Mc-Graw Hill Pub. Co., New Delhi.

2. Bordin S. Edward, *Psychological Counselling ,* ed2, Meredith Corpn., New York, 1968

3. Blum L., Milton and Balinsky Benjamin, *Counselling and Psychology,* Asia Pub., House, New Delhi, 1961.

# Paper 3.2: INDUSTRIAL PSYCHOLOGY

## UNIT-1
Industrial psychology: Definition – Nature – Scope – Objectives – Areas covered in industrial psychology – Contribution of industrial psychology – Basic Concepts – Foundations of industrial psychology.

## UNIT-2
Individual Behaviour: Individual Differences: Meaning – Nature – Dimensions – Values of individual differences in industries – Factors influencing Individual Behaviour: Personality – Learning – Ability – Perception – Attitude – Job Satisfaction: Factors influencing job satisfaction.

## UNIT-3
Morale and Motivation: Morale: Meaning – Types – Aspects – Characteristics of high and low morale – Essential requirements for high morale – Psychological requirements for high morale. Motivation: Meaning – Importance – Types – Motivation in industry – Monetary and non-monetary incentives.
Fatigue, Boredom and Monotony: Meaning – Causes – Remedies.

## UNIT-4
Group Behaviour: Groups: Meaning – Types – Group dynamics – Group norms – Group cohesiveness.

## UNIT-5
Leadership: Meaning – Types – Importance – Qualities of a successful leader.
Stress: Meaning – Sources – Causes – Managing stress.

## UNIT-6
Maladjusted Worker: Meaning – Causes –Readjustment. Employee Counselling: Meaning – Significance – Types and process – Employee health, safety and security – Industrial accidents – Accident proneness – Prevention of accidents – Quality of Work Life: Meaning – Importance – Factors affecting quality of work life.

## REFERENCE BOOKS:
1. Ghosh P K & Ghorpade M B, *Industrial Psychology*, Himalaya Pub, Mumbai.
2. Ramnath Sharma, *Industrial Psychology*, Rajhans Prakashan Mandir, Meerut.
3. Arnold John et-al, *Work Psychology: Understanding human behaviour in the work place*, Macmillan, Delhi.

## Paper 3.3: EDUCATIONAL PSYCHOLOGY

*UNIT I*

**Nature and Scope of Educational Psychology :** Educational Psychology – Meaning and definition, Nature and Scope – Need for Educational Psychology – Methods of Educational Psychology

**UNIT II**

**Human Development :** Growth and development – Stages in development – Maturation and Learning – Hereditary and environmental influences on developmental process – General Characteristics of different stages

**UNIT III**

**Learning and Individual Differences :** Learning – Meaning and definition – Learning Theories – Learning curve – Factors affecting Learning – Transfer of  learning –Individual Differences – Meaning and definition – nature and type of difference – aptitude, attitude, intelligence, interest, social and achievement differences – Remembering and Forgetting – Motivation

**UNIT IV**

**Intelligence and Testing :** Intelligence – Meaning and definition – Theories of Intelligence – Assessment of Intelligence – Intelligence quotient – Emotional Intelligence – Social Intelligence  - Intelligence tests – Uses of Intelligence tests – creativity.

**UNIT V**

**Personality and Measurement of personality:** Meaning and definition – Theories  of Personality – Measurement of Personality

**UNIT VI**

**Exceptional Children:**  Exceptional children and Special Education – meaning and definition – Classification – Educational Provisions – Guidance and counselling – Meaning and definition – Types and Techniques – Guidance & counseling with special reference to exceptional children

**REFERENCE BOOKS :**

1. S.K.Mangal, *Advanced Educational Psychology*
2. Charles E. Skinner, *Educational Psychology*, Prentice Hall of India
3. S.K.Chatterjee, *Advanced Educational Psychology*, Books & Allied (P) Ltd.
4. S.B.Kakkar  *Educational Psychology*, Prentice Hall of India (P) Ltd.
5. John W.Santrock, *Educational Psychology*, Tata McGraw – Hill.
6. A.R.Rather, *Creativity – Its recognition & Development*, Sarup & Sons.

# Paper 3.4:  MARKETING AND ADVERTISING

## UNIT-1

Marketing: Meaning – Importance – Marketing concept –Market Segmentation: Meaning – Bases – Benefits – Marketing mix – Relationship marketing.

## UNIT-2

Consumer Behaviour: Meaning – Factors affecting Consumer Behaviour: Socio-cultural – Personal – Psychological factors.

## UNIT-3

Psychology in Advertising:  Advertisement: Meaning – Objectives – Role of advertising – Attitude and advertising – Decision areas in advertising – Evaluation and effectiveness of advertising.

## UNIT-4

Psychology in Selling:  Personal Selling: Meaning – Importance – Scope – Objectives – Types – Selling methods – Selling situations – Salesmanship: Types of salesmen – Qualities of a successful sales person – Theories of selling.

## UNIT-5

Selling Process-I:  Stages: Prospecting: Importance – Characteristics – Methods – Pre-approach: Meaning – Objectives – Importance – Strategies – Approach: Meaning – Importance – Strategies – Essentials.

## UNIT-6

Selling Process-II: Presentation and Demonstration:  Objectives – Essential features – Demonstration:  Significance – Essentials – Types – Handling Objections: Strategies and methods – Closing: Meaning – Features of successful closing – Methods of closing.

**REFERENCE BOOKS:**
1. William J. Stanton, *Fundamentals of Marketing*.
2. C.B. Mamoria & Satish Mamoria, *Marketing Management*.
3. J.C. Gandhi, *Marketing*.
4. Rajan Nair, *Marketing*.
5. S.A. Sherlekar, *Essentials of Marketing Management*.

# Paper 3.5: EXPERIMENTAL PSYCHOLOGY

**UNIT I**

Experimental Psychology – Meaning – Qualitative and Quantitative Research – Different Approaches – Variables in Experimentation – Types of Experimental Design.

**UNIT II**

Psychophysical Methods – Concepts – Methods of Limits – Method of Average Error – Frequency Method – Paired Comparisons – Ranking method – the use of reaction time for scaling.

**UNIT III**

Experimental Methods for the study of Learning – Transfer of Learning - Maze learning – Remembering – Forgetting – Letter – Digit Substitution

*UNIT IV*

Administration of Intelligence Test – Creativity – Types of Mental Imagery – Divergent Thinking – Achievement Motivation

**UNIT V**

Experiments with special reference to personality – Eysenck's Personality Questionnaire – TAT – Rorschach Ink Blot Test.

**UNIT VI**

Experimentation in Thinking – Attention – Problem solving – Manual Dexterity, Individual Abilities & Aptitudes.

**REFERENCE BOOKS:**

1. Woodworth & Schlosberg, *Experimental Psychology,*
2. John Parry & William Adiseshiah , *Experimental Psychology*
3. S.K. Mangal, *Advanced Psychology.*

**Course** **:** **B.Sc. Mathematics**

Mode : Distance Education

Duration : Three Years

Eligibility : Pass in Higher Secondary / 3 year Diploma

Medium **:** **English**

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|---|---|---|
| **I YEAR** | | |
| 1.1 | Part-I: Tamil/ Hindi Paper-I | 100 |
| 1.2 | Part-I: English-I | 100 |
| 1.3 | Classical Algebra | 100 |
| 1.4 | Calculus | 100 |
| 1.5 | Analytical Geometry and Vector Calculus | 100 |
| **II YEAR** | | |
| 2.1 | Part-II: Tamil/ Hindi Paper-II | 100 |
| 2.2 | Part-II: English-II | 100 |
| 2.3 | Mechanics | 100 |
| 2.4 | Analysis | 100 |
| 2.5 | Probability and Statistics | 100 |
| **III YEAR** | | |
| 3.1 | Algebra | 100 |
| 3.2 | Operations Research | 100 |
| 3.3 | Numerical Methods | 100 |
| 3.4 | Complex Analysis | 100 |
| 3.5 | Discrete Mathematics | 100 |
| | **Total** | **1500** |

Paper 1.3 : CLASSICAL ALGEBRA

**UNIT I**

Sequences, Convergent, Divergent and Oscilating sequences – Series of positive terms, D'Alembert test, Comparison test, Ratio test, Root test, Conditional convergence – Alternating series.

**UNIT II**

Binomial theorem for rational index – Binomial series – Exponential series, Logarithmic series – Summation of series using binomial, exponential and logarithmic series.

**UNIT III**

Theory of equations, Relation between the roots and coefficients – Symmetric functions of the roots – Sum of the power of the roots of the equation – Transformation of equation by given quantity – Removal of terms – Multiple roots.

**UNIT IV**

Inequalities, Matrices and determinants – Properties of determinants – Operation on matrices, adjoint of a square matrix – Inverse of a non-singular matrix, system of equations, Cramer's rule, Eigen values.

**REFERENCE BOOKS :**

1. Arumugam & Issac, *Sequences and Series*.
2. Arumugam & Issac, *Set Theory, Number System and Theory of Equations*.
3. Venkataraman & Manorama, *Algebra*, National Publishing House, Chennai.

## *Paper 1.4 : CALCULUS*

**UNIT I**

Differentiation – Successive differentiation – Partial differentiation – Maxima and minima of functions of two variables, tangents and normals, curvature, envelope and evolute.

**UNIT II**

Integration – Substitute methods, $1/(x^2 - a^2)$, $1/(x^2 + a^2)$, $1/(a^2 - x^2)$, $1/(x^2 - a^2)^{1/2}$,

$(x^2 - a^2)^{1/2}$, $(x^2 + a^2)^{1/2}$, $(a^2 - x^2)^{1/2}$, - Integration by parts – Definite integrals and their properties, Reduction formulae.

**UNIT III**

Differential equations – Homogeneous equations in x and y, First order linear equations, Linear equations of order 2 with constant coefficients.

**UNIT IV**

Laplace transform, Inverse Laplace transform, Solving differential equations using Laplace transforms. Partial differential equations – First order partial order equations – Some standard forms – Charpit's method.

**REFERENCE BOOKS :**

1. Arumugam & Issac, *Calculus*.
2. Arumugam & Issac, *Differential Equations and Applications*.

### *Paper 1.5 : ANALYTICAL GEOMETRY AND VECTOR CALCULUS*

## UNIT I

Two dimension analytical geometry – Pair of straight lines, Circle, System of circles, Radical axis, Pole and polar conics – Polar coordinates.

## UNIT II

Three dimension analytical geometry – Direction ratios and direction coefficients – Plane – Plane equation – Angle between two planes – Length of the perpendicular – Distance between two planes – Straight line, Symmetrical form – Image of a point, Image of a line about a plane – Plane and straight lines – Coplanar lines.

## UNIT III

Skew lines – Shortest distance between two skew lines – Sphere – Equation of a sphere, Tangent plane – Equation of a circle on a sphere – Intersection of two spheres.

## UNIT IV

Vector: Addition, Scalar multiplication, Cross product, Triple products, Gradient, Divergent, Curl, Vector integration, Line integral, Problems using Greens' theorem, Stokes' theorem and Guass theorem (Proofs are omitted).

## REFERENCE BOOKS :

1. Arumugam & Issac, *Analytical Geometry 3D and Vector Calculus*.
2. Venkataraman & Manorama, *Analytical Geometry*.

## Paper 2.3 : MECHANICS

**UNIT I**

Forces acting at a point – Resultant and components – Parallelogram law of forces – Triangle law of forces – Converse – Lami's theorem – Resolution of a force – Theorems on resolved parts – Resultant of any number of coplanar forces – Condition of equilibrium.

**UNIT II**

Forces acting on a rigid body:  Parallel forces – Resultant of two like and unlike parallel forces – Moment of a force – Varigon's theorem – Three forces acting on as rigid body and simple problems – Laws of friction – Coefficient of friction – Angle of friction – Cone of friction – Problems.

**UNIT III**

Projectiles – Path of projectiles is a parabola – Range etc. – Range of a particle projected on a incline plane etc. – Impact, Impulses – Impact in a fixed plane – Direct and oblique impact.

**UNIT IV**

S.H.M – Equation of motion – Composition of S.H.M's Central orbits – Components of velocity and acceleration along and perpendicular to the radius vector – Differential equation of a central-pedal equation.

**REFERENCE BOOKS :**

1.  Venkataraman, *Dynamics and Statics*.
2.  Duraipandian, *Dynamics*.

## Paper 2.4 : ANALYSIS

**UNIT I**

Metric spaces: Definition and examples – Limits in metric spaces – Continuous functions on metric spaces – Functions continuous at a point in the real line – Reformulation – Open sets – Closed sets – Discontinuous functions on R.

**UNIT II**

Connectedness and completeness: More about open sets – Connected sets – Bounded sets – Totally bounded sets – Complete metric spaces.

**UNIT III**

Compactness: Compact metric spaces – Continuous functions on compact metric spaces – Continuity of the inverse function – Uniform continuity.

**UNIT IV**

Sequence of functions: Pairwise convergence of sequences of functions – Uniform convergence of sequences of functions – Consequences of uniform convergence. Series of functions: Convergence and uniform convergence of series of functions – The contraction mapping theorem – The Picard's existence theorem.

**REFERENCE BOOKS :**

1. Arumugam & Issac, *Modern Analysis*.

# *Paper 2.5 : PROBABILITY AND STATISTICS*

**UNIT I**

Probability – Conditional probability – Random variable – Mean, Mode, Medium, Standard deviation, Skewness, Kurtosis.

**UNIT II**

Curve fitting – Correlation, Regression, Coefficient or correlation, Rank correlation.

**UNIT III**

Binomial, Poisson, Normal, Rectangular distributions – Moment generating functions.

**UNIT IV**

Test of significance :  t, $\chi^2$ and F tests – Analysis of variance – Index numbers, Association of attributes.

**REFERENCE BOOKS :**

1.  Arumugam & Issac, *Statistics*.

## *Paper 3.1 : ALGEBRA*

**UNIT I**

Set theory:  Sets and mappings – Concept of a set – Set inclusion – Union of sets – Intersection of sets – Difference of sets – Complement of a set – Symmetric difference of two sets – Cartesian product of sales – Relations – Equivalence relations – Partial order – Functions – Binary operations.

**UNIT II**

Group theory: Definition and examples – Properties – Permutations – Subgroups – Cyclic groups – Order of an element – Cosets – Lagrange's theorem – Homomorphism – Isomorphism.

**UNIT III**

Ring theory:  Definition and examples – Properties of rings – Isomorphism – Types of rings – Integral domains – Fields – Characteristic of a ring – Subrings – Quotient field – Euclidean ring – Properties – Polynomial rings.

**UNIT IV**

Vector spaces:  Definition and examples – Subspaces – Linear independence – Span of a set – Basis and dimension – Rank and nullity of a linear transformation – Inner product spaces:  Definition and examples – Orthogonality – Orthogonal complement.

**REFERENCE BOOKS :**

1.  Arumugam & Issac, *Modern Algebra*.

## *Paper 3.2 : OPERATIONS RESEARCH*

**UNIT I**

Introduction to L.P.P. – Mathematical formulation of L.P.P. – Graphical solution – Concept of duality, Duality theorem – Simplex method.

**UNIT II**

Big M-method, Two-phase method – Integer Programming – Cutting plane technique.

**UNIT III**

Transporation problem – North-west corner method – Row minima method – V.A.M. Method – Optimum solution – Unbalanced transportation problem – Assignment problems.

**UNIT IV**

Game theory:  Two person zero sum games – Saddle point – Games without saddle point – Graphical method – PERT-CPM – Networks.

**REFERENCE BOOKS :**

1.  Man Mohan & Gupta, *Operations Research*.

## *Paper 3.3 : NUMERICAL METHODS*

**UNIT I**

Transcendental and polynomial equations: Bisection method, Iteration method, Method of false position, Newton-Raphson method – System of linear equations: Matrix inversion method, Cramer's rule, Guass elimination method, Guass-Jordan elimination method, Triangularisation method.

**UNIT II**

Interpolation: Finite differences, Interpolating Polynomials using finite differences, Lagrange and Newton interpolations, Guass formulae, Stirlings formula, Bessel's formula, Everett's formula, Hermite's formula.

**UNIT III**

Numerical differentiation and integration: Numerical differentiation, Methods based on interpolation, Methods based on finite differences; Numerical integration, Trapezodial rule, Simpson's $\frac{1}{3}$ rule, Simpson's $\frac{3}{8}$ rule, Boole's rule, Weddle's rule.

**UNIT IV**

Numerical solutions of ordinary differential equations: Taylor's series method, Picard's method, Euler's method, Runge-Kutta method, Predictor-Corrector methods.

**REFERENCE BOOKS :**

1. Arumugam, *Numerical Methods*, Scitech, Chennai.
2. Venkatraman, *Numerical Analysis*.

## Paper 3.4 : COMPLEX ANALYSIS

**UNIT I**

The geometric representation of a complex number – the spherical representation and stereographic projection – Analytic function – CR equations – Harmonic conjugate – To find an analytic function $f(z)=u+iv$ if a harmonic function us is given – Power series – radius of convergence – Power series represents an analytic function inside the circle of convergence – Abel's limit theorem.

**UNIT II**

Conformal mappings – Bilinear transformations – Fixed point of bilinear transformations – Cross ratio – Most general bilinear transformations which transforms unit disk onto the unit disk; half plane $lm(z) \geq 0$ onto the unit disk.

**UNIT III**

Complex integration – Cauchy's theorem for a rectangle – For a disk – The index of a point with respect to a closed curve – Cauchy's integral formula – Higher derivatives – Taylor's theorem – Zeros – The local mapping theorem – The maximum principle – Schwarz's lemma – Morera's theorem – Cauchy's extimate – Liouville's theorem – Fundamental theorem of algebra.

**UNIT IV**

The Laurent series – Singularities – The residue theorem – The argument principle – Rouche's theorem – Evaluation of definite integrals.

**REFERENCE BOOKS :**

1. Arumugam, Issac & Somasundaram, *Complex Analysis*.
2. Sridharan N, *Introduction to Complex Analysis*.

## *Paper 3.5 : DISCRETE MATHEMATICS*

**UNIT I**

Logic introduction – Connectives – Atomic and compound statements – Truth table – Tautology – Tautological implications and equivalence of formulae – Normal forms – Principal normal forms.

**UNIT II**

Theory of inference: Open statements – Quantifiers – Theory of inference for predicate calculus.

**UNIT III**

Graph theory – Basic concepts – Matrix representation of graph – Trees – Spanning trees – Shortest path problem – Directed trees and binary treed.

**UNIT IV**

Cut sets and cut vertices – Eulerian and Hamiltionian graphs – Network of flows – Capacity of a cut – The max-flow min-cut theorem – Ford and Fulkerson algorithm – Planar graphs – Euler's formula.

**REFERENCE BOOKS :**

1. Venkatraman, Sridharan and Chandrasekaran, *Discrete Mathematics*, National Publishing House, Chennai.

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| Course | : | **Bachelor of Computer Applications (BCA)** |
|--------|---|---------------------------------------------|
| Mode | : | Distance Education/ Open University Stream |
| Duration | : | Three Years |
| Eligibility | : | Pass in HSC/Pre-University/ Diploma in Engineering/ DCA or equivalent with Mathematics as a distinct subject, or 18 years completed as on $1^{st}$ June |
| Medium | : | English only |

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|:---:|:---|:---:|
| **I YEAR** | | |
| 1.1 | Electronic Devices and Digital Circuits | 100 |
| 1.2 | Principles of Information Technology | 100 |
| 1.3 | Principles of Operating System | 100 |
| 1.4 | C Programming | 100 |
| 1.5 | Accounting Fundamentals | 100 |
| 1.6 | Computer Lab - I (C Programming) | 100 |
| **II YEAR** | | |
| 2.1 | Microprocessors and Personnel Computers | 100 |
| 2.2 | Office Automation | 100 |
| 2.3 | Systems Analysis and Design | 100 |
| 2.4 | Object Oriented Programming and C++ | 100 |
| 2.5 | Computer Graphics | 100 |
| 2.6 | Computer Lab - II (C++ and MS Office) | 100 |
| **III YEAR** | | |
| 3.1 | Business Communication | 100 |
| 3.2 | Windows and Visual Basic | 100 |
| 3.3 | Internet and Java Programming | 100 |
| 3.4 | RDBMS | 100 |
| 3.5 | Management Principles and Techniques | 100 |
| 3.6 | Computer Lab - III (Oracle & Visual Basic) | 100 |
| | **Total** | **1500** |

Paper 1.1: ELECTRONIC DEVICES AND DIGITAL CIRCUITS

**UNIT-1**

Binary codes - Excess 3 code - Gray code - ASCII code - Number systems - Decimal - Hexa decimal - Arithmetic circuits - Binary addition - Subtraction - Signed binary numbers.

**UNIT-2**

Transistor as a switch - Binary operation - Logic gates (NOT, OR, AND, NOR, NAND, XOR) - De Morgans' theorems - Boolean algebra - Boolean theorems.

**UNIT-3**

Simplification of digital circuits - Design of Combinatorial Circuits - Half Adder - Full Adder - Half Subtractor - Full Subtractor - Karnaugh Map - Quine-McKluskey Tabulation Method.

**UNIT-4**

Flip Flops: R-S, D and J-K Flip Flops - Shift left register - shift right register - controlled shift register - Asynchronous counters - synchronous counters - ring counters.

**UNIT-5**

Introduction - p-n diode and characteristics - switching diode - breakdown diode - photo diode - Fundamentals of BJI Operation - FET, JFET and MOSFET - Switching devices.  UJI and SCR - OP. amp. Characteristics - Applications of Op. amp - Review of amplifiers - Review of oscillators.

**REFERENCE BOOKS:**

UNIT - 1, 2, 3 and 4

1. Digital Computer Electronics - A.P.Malvino, Tata-Mcgraw Hill,1988, New Delhi.

2. Digital Electronics - R.L.Tokheim, McGraw Hill book company, 1985, USA.

UNIT - 5

3. Solid state electronic devices - Ben G.Steetman. PHI, 19986, New Delhi.

4. Electronic devices and circuits - G.K.Mithal, Khanna Pub, 1987, New Delhi.

Paper 1.2:  PRINCIPLES OF INFORMATION TECHNOLOGY

## *UNIT-1*

**An Overview of the Revolution in Computers and Communications:** From the analog to the digital age : The " New Story" of computers and communications - The six Elements of a Computer & Communications System - Communications: Development in Computer Technology, Developments in Communications Technology - Computer and Communications Technology Combined: Connectivity and Interactivity - The Ethics of Information Technology.

## *UNIT-2*

**Application Software:**   Kinds of Software - The five types of applications software - Word processing - Spreadsheets - Database software - Presentation graphics software - Communications software - Desktop accessories and personal information managers - integrated software and suites - Groupware - Internet Web browsers - Specialised software - Ethics and Intellectual property rights.

## *UNIT-3*

**Communications:** The practical uses of communications and connectivity - Telephone related communications services - Video/voice communication: Video conferencing and picture phones - online information services - The Internet - Shared resources : Workgroup computing, Electronic Data Interchange, and Intranets -  Telecomputing  and virtual offices - Using computer to communicate: Analog and Digital Signals - modems and communication Software, ISDN lines, and Cable Modems - Communications Channels: Communications Networks - Local Networks - Factors affecting Data transmission - Cyberethics: Netiquette, Controversial material and censorship, and privacy issues.

## *UNIT-4*

**Storage And Databases :** Storage fundamentals - Compression and Decompression - Criteria for Rating Secondary Storage Devices - Diskettes - Hard Disks - Optical Disks - Magnetic Tapes - Organising Data in Secondary Storage: Databases, Data Storage - Hierarchy and the concept of the key field -

File Management: Basic concepts - File Management Systems - Data Management Systems - Types of Database Organization - Features of a DBMS.

## *UNIT-5*

**Information System and Software Development:** Management Information Systems - The Six phases of System Analysis and Design - The Five Steps in Programming - Five Generations of Programming Languages - Programming Languages - Object Oriented and Visual Programming - Internet Programming - HTML, XML, JAVA and ActiveX.

**TEXT BOOK:**

1. Stacey C Sawyer, Brain K Williams, Sarah E Hutchinson, Using Information Technology - A Practical Introduction to Computer and Communications, ed2, The McGraw Hill Companies.

**REFERENCE BOOK:**

2. J Hames O'Brien, Introduction to Information System.

## Paper 1.3: PRINCIPLES OF OPERATING SYSTEMS

### *UNIT-1*

Introduction: What is an operating system - History of Operating systems - Operating system concepts - System calls - Operating system structure.

### *UNIT-2*

Process Management: Introduction to processes - Interprocess Communication: Race conditions - Critical sections - Mutual exclusion - Semaphores - Event counters - Monitors - Message Passing - Process Scheduling - Round robin scheduling - Priority Scheduling - Multiple queues - Shortest job first - Policy driven scheduling - Two level scheduling.

### *UNIT-3*

Input/Output Management: I/O Devices - Device Controllers - Goals of I/O Software - Interrupt handlers - Device drivers - Device-independent I/O Software - User-space I/O Software - Deadlocks: Resources - Deadlock modeling - Detection and Recovery - Deadlock Prevention - Avoidance.

### *UNIT-4*

Memory Management: Memory management without swapping or paging: Multiprogramming without swapping or paging - Multiprogramming and Memory usage - multiprogramming with fixed partitions - swapping: Multiprogramming with variable partitions - Memory management with Bit-maps, Linked-lists and Buddy System - Analysis of Swapping systems - Virtual Memory: Paging - Segmentation - Page replacement algorithms.

### *UNIT-5*

File Management: File basics - Directories - Disk space management - File storage - Directory structure - shared files -File system reliability - File system Performance - File servers - Security - Protection mechanisms.

**TEXT BOOKS :**

1. James L. Peterson and Abraham Silberschatz, Operating System Concepts, Addison Wesley (1985).
2. Andrew S.Tanenbaum, Operating Systems Design and Implementation, Prentice Hall (1987).

**REFERENCE BOOKS :**

3. Philippe A. Janson, Operating Systems Structures and Mechanisms, Academic Press (1985).
4. Harvey M. Deitel, An Introduction to Operating Systems, Addison Wesley (1984).
5. Stuart E. Madnick and John J. Donovan, Operating Systems, McGraw Hill ISE (1968).
6. Per Brinch Hansen, Operating System Principles, Prentice-Hall of India (1973).

**Paper 1.4: C PROGRAMMING**

## *UNIT-1*

Program Development: Top down approach - Modularity - Stepwise refinement - Pseudocode selection - iteration - control structures - Loops - Structured programming - procedures and recursion - Exchanging the values - Factoring methods - Array techniques - Basics of sorting - Text processing .

## *UNIT-2*

Overview of C data types, operators and expressions: History of C ANSI standard - Anatomy of C program - Coding style - Sample C programs - Executing simple programs - Character set - Key words and Identifiers - Constants ,variables and datatypes - Symbolic constants - Operators - Expressions - Evaluation of expressions - Precedence of operators - Type conversions in expressions - Associativity and precedence - some computational problems.

## *UNIT-3*

I/O operations ,control flow and arrays : Reading and writing a character-Formatted input and output - Conditional branching - Switch statement - Looping - Nested loops - The Break and continue statements - The Goto statement - Infinite loops - Declaring arrays - Storing arrays in memory - Initialising arrays - Strings - Two dimensional arrays - Multidimensional arrays.

## *UNIT-4*

Functions, pointers, storage classes, structures and unions: Need for user defined functions - The form of C functions - Return values and their types - calling a function - Category of functions - Recursion - Functions - Functions with arrays - The

scope and lifetime of variables in functions - Understanding pointers - pointer arithmetic and expressions - Pointer and arrays - Array of pointers - pointers to pointers - Passing pointers as arguments to functions - Different storage classes - extern, static, auto, register - Structure - Definition - Structures within structures - Structures and functions - Unions - Dynamic storage allocation - Linked allocations.

## *UNIT-5*

File management and preprocessors : Streams, Buffering, Error handling, Opening and closing a file, Reading and writing data, Selecting an I/O method - Random access - Macro substitution – Conditional substitution - Conditional compilation - Include facility, line control.

**TEXT BOOK :**

Byron S Gottfried, "Programming with C", Schaums outline series, McGraw Hill Book company, 1996.

**REFERENCE BOOKS:**

1.   B.W.Kerningham and D.Ritchie, "The C ProgrammingLanguage", PHI, 1988.

2.   D.Ravichandran, "Programming in ANSI C", New Age International(P) ltd, 1989.

3.   E.Balagurusamy, "Programming in ANSI C", TMH, 1995.

## Paper 1.5: ACCOUNTING FUNDAMENTALS

*UNIT-1*

Accounting - Definition - Accounting for historical function and managerial function - Scope of accounting - Financial accounting - Cost accounting and management accounting - Managerial uses - Differences.

**UNIT-2**

Financial Accounting: Accounting concepts - Conventions - Principles - Accounting standards - International Accounting standards.

**UNIT-3**

Double entry system of accounting - Accounting Books - Preparation of Journal and Ledger - Subsidiary books - Errors and rectification - Preparation of a Trial balance and Final accounts.

**UNIT-4**

Accounting from incomplete records – Statement of affairs methods – Conversion method – Preparation of Trading, Profit and Loss Account and Balance Sheet from incomplete records.

**UNIT-5**

Ratio Analysis - Types - Profitability ratios - turnover ratios - liquidity ratios - propriety ratios - Market Earnings Ratios - Factors affecting efficiency of ratios - How to make effective use of ratio analysis - Uses and limitation of ratios - construction of Profit & Loss account and Balance sheet with ratios and relevant figures - Inter-firm, Intra-firm comparisons.

**REFERENCE BOOKS:**

1.  M.A.Arulanandam & K.S.Raman - Advanced Accounting
2.  R.C.Gupta & Radaswamy - Advanced Accounting
3.  M.C.Shukla & T.S.Grewal - Advanced Accounting
4.  Jain & Narang - Advanced Cost Accounting
5.  P. Das Gupta - Advanced Studies in Cost Accounting
6.  S.N.Maheswari - Management Accounting & Financial Control
7.  Manmohan & Goyal - Principles of Management Accounting
8.  N.K.Prasad - Advanced Cost Accounting

**LAB PROBLEMS**
Paper 1.6 – LAB-I: C PROGRAMMING

## *ELEMENTARY LEVEL*

1) Write a C program to add two numbers.

2) Write a C program to find the Area of a circle.

3) Write a C program to calculate Simple Interest.

4) Write a C program to find square root, square and cube of any number.

5) Write a C program to calculate Compound Interest.

6) Write a C program to input a temperature in Celsius and find the corresponding temperature in Fahrenheit. Use the formula $f = 9 / 5 * C + 32$.

7) Write a C program to convert a given number into words for numbers 1 to 5. Ex. 1 to ONE, 2 to TWO and 5 to FIVE.


## *EXAM LEVEL*

8) Write a C program to input a basic pay and calculate Gross pay and Net pay

INCOME:

      HRA        = 15% OF BASICPAY

      DA         = 90% OF BASICPAY

      GROSSPAY = BASICPAY + DA + HRA

DEDUCTIONS :

      PF           = 10% OF BASICPAY

      WCHARGE   = 200

      DEDUCTIONS  = PF + WCHARGE

NET PAY = GROSS PAY – DEDUCTIONS


9) Write a C program to compute commission earned by a salesman according to the scheme given below:

| SALES AMOUNT | COMMISSION % |
|---|---|

|                          |     |
|--------------------------|-----|
| Upto Rs. 1000            | 0   |
| Above 1000 upto 5000     | 5   |
| Above 5000               | 10  |

10) There are 10 students in an class. Their names and marks in three different subjects are given. If a student takes more than 40 marks in each subject, then he is declared 'PASS'. Otherwise 'FAIL'. Write a C program to do the above.

11) Write a C program that receives the data such as age and name of person to check the eligibility for voting. Take the condition that if a person is more than 18 years old he is eligible to vote. Else display the number of years, he has to wait for voting.

12) A man is paid at the hourly rate of Rs. 15/- per hour for the first 45 hours worked. Thereafter, overtime is paid at 1.5 times the hourly rate for the next 25 hours and 2 times the hourly rate for further hours worked per week, calculate and Print his gross weekly wage.

13) Write a C program to print the all ASCII characters.

14) Write a C program to find the Biggest of 5 Nos. Modify the program to find the biggest of 10 Nos.

15) Write a C program to sort 10 Nos. in Ascending order.

16) Write a C program to Accept Two strings. Assign a String to another variable, Concatenate the two strings and find the length of concatenated string.

17) Write a C program to find the factorial of a given number using FUNCTION declaration.

18) Write a C program to find Simple & Compound interests using FUNCTION declaration.

## ADVANCED LEVEL
19) Write a C program to sort 5 NAMES in Ascending order.
20) Write a C program to find a word is PALINDROME or not. (Ex. The word MALAYALAM is a PALINDROME and the word TAMIL is not PALINDROME )

21) Write a C program to display the address and the contents of pointer variable.
22) Write a C program to find a bigger number between the two numbers USING POINTER METHOD.
23) Write a C program to accept and display your DATE OF BIRTH using STRUCTURE.
24) Write a C program to accept and display your ADDRESS, using STRUCTURE.
25) Write a C program to create a text file & display the contents of the text file.
26) Write a C program to create an ADDRESS FILE.
27) Write a C program to read the records in an ADDRESS FILE.

## Paper 2.1: MICROPROCESSORS AND PERSONAL COMPUTERS

### *UNIT-1*

Introduction: Microprocessor vs Microcomputer - Microprocessor Based System Block Diagram - Address Bus, Data Bus and Control Bus - SSI, MSI, LSI & VLSI Technologies -Evaluation of Microprocessor.

### *UNIT-2*

Architecture: General Architecture of a Microprocessor (Block Diagram) - Functional Block Diagram of 8085 - Arithmetic Logic Unit - Timing and Control Circuit - Microprocessor Registers: General Purpose and Special Purpose Registers - Interrupts.

### *UNIT-3*

Instructions: Instruction Set - Information Movement Instructions - Information Modification Instructions - Control Instructions - Addressing Modes of 8085 - Instructions Format - Functions of Instructions - Instruction Cycle.

### *UNIT-4*

Programming Microprocessor: Introduction - Assembly Language - Flowchart: Examples - 1's and 2's Complements of Numbers, Addition and Subtraction of two Numbers - Multiplication and Division of two Numbers - Determining Minimum & Maximum Values.

### *UNIT-5*

Memory and Storage Devices: Memory Hierarchy - Semiconductor Memory Family: RAM, SRAM, DRAM, ROM, PROM, EPROM, EEPROM - Memory Organization - Expanding Memory Size - Disks and Drives - Disk Capacities.

## UNIT-6

Data Transfer: Data Transfer Methods:- Parallel Transmission - Serial Transmission - I/O Methods: Isolated I/O and Memory Mapped I/O - Data Transfer Schemes: Programmed I/O, Interrupt I/O and Direct Memory Access (DMA).

## UNIT-7

An overview of PC Hardware Overview: Motherboards - Bus Slots and I/O Cards - Processor Specifications: 80486 and Pentium - Physical Memory: Memory Banks, SIMMS - BIOS - Drive Controller: IDE, SCSI - Video Cards: VGA, SVGA - Expansion Bus: ISA, EISA, VESA and PCI.

## UNIT-8

PC Maintenance: Importance of Preventive Maintenance - Active Preventive Maintenance Procedures - Passive Preventive Maintenance Procedures - Using Power Protection Systems - Using Data Backup Systems.

**Reference Books:**

1. B.P. Singh, Microprocessors and Microcontrollers, Galgotia Publications (1994).
2. Scott Mueller, Upgrading and Repairing PCs, Prentice Hall of India (1995)

**Paper 2.2: OFFICE AUTOMATION**

## *UNIT-1*

Introduction - Working with Windows - Working with Office Programs - Title Bar, Status Bar, Menu bar and Tool bars - Using the Office Assistant - Using the Help window - Creating a Shortcut icon - Starting a Program and Opening a Document - Saving and Naming the Document - Using Favourite Folders - Closing, Deleting and Undeleting a Document - Renaming, Copying and Moving a Document - Finding the Document.

## *UNIT-2*

WORD - Working with Word Documents - Moving, Correcting and Inserting Text - Printing a Document - Editing a Document - Selecting and Copying Text - Formatting - Changing Margins, Line spacing, Text Alignment, Font and Font size - Indenting - Inserting Page Numbers and Breaks - Using Tables and Graphics - Creating Tables - Auto formatting Table Text - Inserting, Moving and Resizing pictures - Spell Checking.

## *UNIT-3*

EXCEL - Building a Worksheet - Selecting worksheet items - Using Autofill - Adding and Removing rows and columns - Copying and Moving information - Creating and Copying formulas - Naming ranges - Using Functions - Improving the appearance of worksheet - Changing Column Width - Formatting Text and Numbers - Using Autoformat - Spell Checking - Using Chart Wizard - Creating, Enhancing and Printing a Chart.

## *UNIT-4*

ACCESS - Creating a New Database - Creating and Saving a table - Primary key creation - Adding, Editing and Deleting fields - Changing the view and Moving fields - Data Entry and Editing - Adding, Inserting and Deleting Records - Adjusting Column widths - Hiding Columns - Finding Records - Sorting Records - Creating, Saving and Editing a Query - Forms - Autoform - Using Report Wizard - Creating and Printing Reports.

## UNIT-5

Creating a PowerPoint Presentation - Integrating office applications - Merging an access table with a word letter - Creating an access report from an Excel List - Creating Powerpoint Presentation from a word outline - Creating a word handout from a Powerpoint Presentation - Creating and printing Binders - Starting outlook - Outlook window – Using menus and dialog boxes - Exiting outlook.

**REFERENCE BOOKS:**

1. Laura Acklen et al, Microsoft Office 97 Professional Essentials, Prentice-Hall India (1998).
2. Shelley O'Hara, Discover Office 97, Comdex Computer Publishing (1997)

**Paper 2.3:  SYSTEMS ANALYSIS AND DESIGN**

*UNIT-1*

System Concepts and System Development Life Cycle: System Concepts - Characteristics - Elements of a system - Types of Systems: Abstract, Physical, Open, Closed and Man-made - Computer Based Information Systems: MIS, DSS, TPS and OAS - System Development Life Cycle - Role of Systems Analyst.

*UNIT-2*

Preliminary Investigation and Fact Finding: System Initiation - Conducting the investigation - Testing Project Feasibility - Operational - Technical - Financial and Economic - Fact Finding Techniques : Interview - Questionnaire - Record Review - Observation.

*UNIT-3*

Systems Analysis: Analysing Systems data - Feasibility Study: Technical, Economical and Operational - Systems Costs and Benefits: Categories of cost - Benefits - Cost Benefit Analysis: Break Even, Present Value, Pay Back and Cash Flow.

*UNIT-4*

Tools for Systems Analyst: Structured Analysis - Tools to structured analysis: Data flow concept - Data flow diagram - Data dictionary - Decision table - Decision tree - Structured English.

*UNIT-5*

Input Output Design: Stages of Systems Design: Logical and Physical - Major Development Activities - Design of Output - Printed, Display and Audio - Design of Input - Capturing Data for input - Input Validation - Input Design of on-line systems.

*UNIT-6*

File and Database Design: File concepts - Types of files - Methods of file Organization - Sequential - Direct - Indexed - Database Design: Database concept - Types of Databases : Hierarchical, Network and Relational.

## *UNIT-7*

System Development: Software Design - Top Down Approach - Flow Chart: System flow chart - Program flow chart - HIPO - IPO - VTOC - Warnier Orr diagram - Structured walkthrough - Quality assurance - Levels of assurance - System testing - Special systems tests.

## *UNIT-8*

System Evaluation Implementation and Maintenance: Training personnel - Training methods - Conversion: Conversion methods - Parallel, Direct, Pilot and Phase-in. Conversion Plan - Site preparation - Data and file preparation - Post implementation review - System maintenance.

**TEXT BOOK:**
Elias M.Awad, Systems Analysis and Design, Galgotia Publication Pvt. Ltd.(1990)
**REFERENCE BOOK:**
James A. Sen, Analysis and Design of Information Systems, McGraw Hill(1985)

**Paper 2.4: OBJECT ORIENTED PROGRAMMING AND C++**

**UNIT-1**

Introduction to C++ - Object Oriented Programming - principles - basic concepts - benefits - languages of OOP. C++ data types - operators - cin and cout streams - manipulators - functions.

**UNIT-2**

Objects and classes - messages - access specifier - data encapsulation - definition and declaration of member functions - constructor and destructor - inline function - friend function - static data and member function.

**UNIT-3**

Pointers : Pointers and references - this pointer - strings - new and delete operators - dynamic constructor - problems with pointer reference - copy constructor.

**UNIT-4**

Polymorphism : compile time polymorphism - function overloading - operator overloading - overloading unary operators - overloading binary operators - pitfalls of operator overloading

**UNIT-5**

Reusability : Inheritance - types of inheritance - inheritance access specifier - derived and base classes - runtime polymorphism - static and dynamic binding - virtual function - pure virtual function - virtual base class - abstract class.

**TEXT BOOK:**

E.Balagurusamy, Object oriented programming in C++, TMH Publications Ltd.

**REFERENCE BOOK:**

Robert Lafore, Object Oriented Programming in Turbo C++, Galgotia Publ. Ltd., 1999

**Paper 2.5: COMPUTER GRAPHICS**

**UNIT-1**

   Introduction: Overview -  Brief history - Applications of computer graphics - Video display generation - Input devices - Hard copy output devices - Graphics system software.

**UNIT-2**

   Output Primitives: Point plotting - Line draw algorithms - Using equation of a line - DDA - Bresenham's algorithm - Circle generation algorithms - Drawing ellipse - Other geometric shapes - Region filling techniques.

**UNIT-3**

   Two Dimensional Transformations: Transformation principles - Basic transformations - Matrix representation - Composite transformations.

**UNIT-4**

   Two Dimensional Viewing and Clipping: Viewing transformations - Windows and viewports - Aspect ratio - Clipping and Shielding: Point clipping - Line segment clipping - Convex polygon clipping - Sutherland Hodgman Algorithm.

**UNIT-5**

   Three Dimensional Transformations: Concepts - Basic transformations: Translation, Scaling, Rotation and Mirror reflection - Matrix representation - Composite transformations.

**UNIT-6**

   Three Dimensional Viewing and Clipping: Viewing process - Three Dimensional Viewing: Specifying projection plane and view volume – Clipping: Clipping against a finite view volume - Cohen Sutherland Algorithm - Constructing a three dimensional view - Hidden Surface Algorithm: Depth comparison - Z-Buffer algorithm.

**UNIT-7**

   User Interface Design : Components of user interface - The User's Model - The command language - Styles of command language - Information display - Feedback - Examples.

**TEXT BOOKS :**

1. Interactive Computer Graphics by M. Newman and F. Sproull,    Mc.Graw Hill

2. Computer Graphics - Plastok and Gordon Kalley., McGraw Hill.

**REFERENCE BOOK:**

1. Donald Hearn and Pauline Baker M, "Computer Graphics", Ed2, PHI, 1996.

**BCA – II YEAR**

Paper 2.6 – LAB-II: C++

1) Write and run a C++ program to find the simple and compound interest for the given principal amount with the given rate of interest for a given period with options for SI and CI.

2) Write and run a C++ program to convert given temperature in Celsius / Fahrenheit to Fahrenheit / Celsius using the formulae with options for C to F and F to C. $F = (9/5) * C + 32, C = (5/9) * (f - 32)$

3) Write and run a C++ program to find the sum and average of given set of marks.

4) Write and run a C++ to read salesman's name, products sold and find the commission based on the following conditions:

| SALES | COMMISSION |
|---|---|
| **Below Rs. 10000/-** | **No Commission** |
| 10001 – 15000 | 5% of sales above 10000 |
| 15001 – 20000 | 250 + 7.5 % of sales above |
| Above 20000 | 625 + 10% of sales above 20000 |

The output should contains Name of the salesman, products sold and the Commission amount.

5) Write and run a C++ program to read student's name and his test score which converts a test score into its equivalent letter grade (a) using else if (b) using switch statement based on the following conditions.

| SCORE | GRADE |
|---|---|
| >= 90 | A |
| >= 80 and < 90 | B |
| >= 70 and < 80 | C |
| >= 70 and < 50 | D |
| < = 50 | E |

The output should contains the student's Name, Test Score and his Grade.

6) Write and run a C++ program to display the given set of numbers in ascending / descending order.

7) Write and run a C++ program to read and display the students particulars such as Regno, name, age and sex using class and objects.

8) Write and run a C++ program to illustrate such as addition, subtraction, multiplication and division using a member function which are defined out of the scope of a class definition.

9) Write and run a C++ program to read the derived class data members such as name, roll number, sex, height and weight from the keyboard and display the contents of the class on the screen. (Single Inheritance Concept)

10) Write and run a C++ program to find the square of a given number with different arguments using function overloading.

11) Write and run a C++ program to create a class of objects e1, e2. The contents of object e1 is added to the object e2 using the operator overloading technique.

12) Create a class called Employee that contains Employee number, employee name, designation, basic pay, deductions (LIC, PF). Include member function to get data from user for 'n' employees. Write and run a C++ program to prepare the payslips for 'n' number of employees using the following details:-

HRA        = 400
DA         = 40% OF BASICPAY
GROSSPAY = BASICPAY + DA + HRA
**NET PAY   = GROSS PAY – DEDUCTIONS**

The result of problem is in given format:

| Emp. No | Emp. Name | Basic | LIC | PF | DA | HRA | GROSSPAY NETPAY |
|---------|-----------|-------|-----|-----|-----|-----|-----------------|
| - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - - - - |

**BCA – II YEAR**

Paper 2.6 – LAB-II:  MS-OFFICE

## *MS-WORD*

### Problem 1 :

Using  the MS-WORD type out the Title Page of your OFFICE AUTOMATION Book.

Format the Title Page by the following formatting features:

1)

    a)  Centre each line

    b)  Choose appropriate Font Size in each line.

    c)  Choose Font type where needed for a letter display

2)  Draw border lines.

3)  Use colour options as your feel appropriate.

<div align="center">* * *</div>

### Problem 2 :

Using the MS-WORD type a CIRCULAR LETTER to be posted to PGDCA candidates to attend Personal Contact Programmed (PCP)

Format the Circular Letter as it is and apply the suitable Font type and Font size.

<div align="center">* * *</div>

## MS-EXCEL

**Problem 1 :**

Sorting Data Create the following worksheet in Excel :

| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Sno | Regno | Name | Age | Maths | English | Tamil | Total | Average | Result |
| 2 | 1 | | | | | | | | | |
| 3 | 2 | | | | | | | | | |
| 4 | 3 | | | | | | | | | |
| 5 | 4 | | | | | | | | | |
| 6 | 5 | | | | | | | | | |
| | | | Maximum | | | | | | | |
| | | | Minimum | | | | | | | |

i)      Fill the TOTAL column.

ii)     Fill the AVERAGE column.

iii)    Replace the RESULT with PASS for AVERAGE >=50 ELSE FAIL.

iv)    Format AVERAGE column with 2 decimals.

v)     Sort this list by REGNO.

vi)    Sort first by NAME then AGE.

vii)   Find the MAXIMUM mark for each subject.

viii)  Find the MINIMUM mark for each subject.

**Problem 2 :**

Filtering Data Create the following worksheet in Excel :

| B | C | E | F | G | H |
|---|---|---|---|---|---|
| REGNO | NAME | MATHS | ENGLISH | SCIENCE | TOTAL |
| 123 | RAM | 65 | 60 | 90 | |
| 124 | ARUN | 45 | 63 | 49 | |

| | | | | |
|---|---|---|---|---|
| 125 | KAVITHA | 50 | 58 | 74 |
| 126 | BALU | 72 | 38 | 82 |
| 127 | SURESH | 48 | 40 | 81 |

i)   Fill the TOTAL column.
ii)   Fill the candidates whose REGNO>=124
iii)   Filter the candidate whose NAME = 'BALU'
iv)   Filter the candidate whose ENGLISH > 60

## Problem 3 :

Data analysis using Cross-Tabulation (Data Tables)

Create the following worksheet in Excel :

| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Sales | Cost | Profit | | | | | | | |
| 2 | 150 | 90 | =A2 − B2 | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | Data Table (What – If Analysis) | | | | | | | | | |
| 5 | Cost | Sales | | | | | | | | |
| 6 | | 125 | 130 | 135 | 140 | 145 | | | | |
| 7 | 100 | | | | | | | | | |
| 8 | 120 | | | | | | | | | |
| 9 | 125 | | | | | | | | | |
| 10 | 160 | | | | | | | | | |

Fill the TABLE by using DATA TABLE command.

**Problem 4:**

Presentation Graphics

Create the following Worksheet in Excel:

| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | AMOUNT IN CRORES | | | | | | | | |
| 2 | YEAR | SALES | EXPENSE | | | | | | | |
| 3 | 1990 | 20 | 9 | | | | | | | |
| 4 | 1991 | 25 | 12 | | | | | | | |
| 5 | 1992 | 35 | 38 | | | | | | | |
| 6 | 1993 | 42 | 25 | | | | | | | |

Draw the Graph and mention the appropriate headings.

Exercise:

    i)      Experiment with other types of graphs by changing your selections in step 3.

    ii)     Include more columns (say PROFIT) with data values and create different types of graphs.

<div align="center">* * *</div>

## *MS-ACCESS*

1) Create ADDRESS table with following Fields :

| FIELD NAME | DATA TYPE |
|---|---|
| NAME | TEXT |
| AGE | NUMBER |
| SEX | TEXT |
| STREET | TEXT |
| CITY | TEXT |
| PIN | NUMBER |

1.1 Add 5 Records.

Enter the following RECORDS :

| NAME | AGE | SEX | STREET | CITY | PIN |
|------|-----|-----|--------|------|-----|
| RAJA | 25 | M | ANNA STREET | KARIAKUDI | 630003 |
| RANI | 18 | F | SOUTH STREET | MADURAI | 625001 |
| VELU | 21 | M | IST STREET | CHENNAI | 600006 |
| BABU | 38 | M | WEST STREET | KARAIKUDI | 630001 |
| RAVI | 17 | M | RAJA STREET | KARAIKUDI | 630002 |

1.2 Display the fields NAME, STREET alone on the screen.

1.3 Display the records for AGE > 20

1.4 Display the records for AGE > 20 AND CITY = 'KARAIKUDI'

1.5 SORT the table in the ascending order of NAME.

* * *

2) Create STUDENT table with the following Fields :

FIELD NAME      DATA TYPE

REGNO           NUMBER

NAME            TEXT

AGE             NUMBER

SEX             TEXT

DEGREE          TEXT

PERCENTAGE   NUMBER

2.1 Add 5 Records using FORMS.

Enter the following RECORDS :

| REGNO | NAME | SEX | AGE | DEGREE | PERCENTAGE |
|-------|------|-----|-----|--------|------------|
| 2000101 | MANOHAR | M | 35 | MCA | 76 |
| 2000102 | SUJATHA | F | 24 | MSC | 79 |

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| | | | | | |
|---|---|---|---|---|---|
| 2000103 | MAHESH | M | 35 | MCA | 65 |
| 2000104 | ABIRAMI | F | 21 | MBM | 84 |
| 2000105 | RAMESH | M | 18 | MCS | 91 |

2.2 Display the records for SEX = 'M' AND DEGREE = 'MCA'

2.3 Display the records for SEX = 'F' and PERCENTAGE between 70 and 80

2.4 Display the records for DEGREE = 'MCA' AND NAME LIKE 'M*'

2.5 SORT the table in the descending order of PERCENTAGE.

<div align="center">* * *</div>

3) Create SALES table with the following Fields :

| FIELD NAME | DATA TYPE |
|---|---|
| NAME | TEXT |
| SEX | TEXT |
| SALECODE | NUMBER |
| SALE AMOUNT | NUMBER |

3.1 Add 5 Records using FORMS.

Enter the following RECORDS :

| NAME | SEX | SALE CODE | SALE AMOUNT |
|---|---|---|---|
| GURU | M | 101 | 6000 |
| RAMAN | M | 102 | 7000 |
| RANI | F | 103 | 4000 |
| VANI | F | 104 | 8000 |
| VELAN | M | 105 | 3000 |

3.2 Display the records for SALE AMOUNT > 5000 AND SEX = 'M'

3.3 Display the records for SEX = 'F' and SALE AMOUNT between 5000 and 9000

3.4 Display the records for SALE AMOUNT < = 5000

3.5 SORT the table in the descending order of SALE AMOUNT

<div align="center">* * *</div>

4) Create LIBRARY table with the following Fields :

| FIELD NAME | DATA TYPE |
|---|---|
| BOOK NUMBER | NUMBER |
| TITLE | TEXT |
| AUTHOR | TEXT |
| PRICE | NUMBER |
| PUBLISHER | TEXT |
| BRANCH | TEXT |

4.1 Add 5 Records using FORMS.

Enter the following RECORDS :

| Book Number | Title | Author | Price | Publisher | Branch |
|---|---|---|---|---|---|
| 555101 | RDBMS | Mahesh | 350 | PHI | CS |
| 444101 | Marketing Management | Natarajan | 400 | IDG | Commerce |
| 555102 | Office Automation | Meyyappan | 250 | ALU | CS |
| 555103 | Java Programming | Kuppusamy | 400 | BPB | CS |
| 555104 | Office Automation | Manohar | 300 | PHI | CS |

4.2 Display the records for TITLE = 'OFFICE AUTOMATION' AND AUTHOR LIKE 'M*'.

4.3 Display the records for BOOK NUMBER = 555101 AND BRANCH = 'CS'

4.4 Display the records for PUBLISHER = 'PHI' OR PUBLISHER = 'BPB' AND PRICE BETWEEN 300 AND 500.

4.5 SORT the table in the Ascending order of BOOK NUMBER.

* * *

**Paper 3.1: BUSINESS COMMUNICATION**

**UNIT-1**

Introduction: Importance of Business Communication - Communication Goals - Techniques - Problems - Obstacles to Communication - Types of Communications.

**UNIT-2**

Business Letters: Essentials of a Good Business Letter - Structure - Enquiry - Quotations - Orders - Acknowledging goods and making payments - Complaints and settlements.

**UNIT-3**

Drafting of Minutes and Reports: Importance of Minutes and Reports - Characteristics - Preparation - Form - Sample Minutes and Reports.

**UNIT-4**

Drafting of short speeches and writing of Essays: Introduction - Preparation - Effective Presentation - Writing a Speech - Use of Humour - Guidelines for writing Essays - Sample Speeches and Essays.

**UNIT-5**

Applying for Situations and Providing Biodata: Essential Requirements of an Application for Employment - Conventional form - Sample Applications - Role of Biodata - Preparation of Biodata - Form - Examples.

**REFERENCE BOOKS:**

1. Bhal and Nagmiah : Modern Business Correspondence
2. Reddy and Appaniah : Essentials of Business Communication

**Paper 3.2: WINDOWS AND VISUAL BASIC**

**UNIT-1**

Introduction to Windows - Windows Graphic User Interface (GUI) - Getting Started with Windows - Required Hardware and Software - Format of a Window - Icons - Selecting, Moving, Sizing Windows - Menus - Help.

**UNIT-2**

Program, File & Print Managers - Running Applications - Mutitasking - Clipboard - Control Panel - Print Manager - Write - Text formatting - Paintbrush - Picture Attributes - Drawing Tools - Windows Power User - Operating Modes - PIF Editor - OLE - Multimedia Windows.

**UNIT-3**

Visual Basic Concepts - Event-Driven Programming - Terminology - Working Screen - Controls and Events - Menu System - Programming Language - Tools: MsgBox, InputBox, Scroll Bars, Frames, CheckBox, Menus.

**UNIT-4**

Program Design - Form and Controls - Writing the Code - Saving, Running and Testing - Making EXE File - Printouts - Program Flow: Logical Testing - Branching with IF, CASE, FOR..NEXT, DO Loops, WHILE..WEND.

**UNIT-5**

Procedures, Functions, Forms and Arrays - Creating Procedures, functions - Recursive Functions- Multiple Forms - Startup Forms - SubMain Procedure - Arrays and Loops - Control Arrays - Indexing and Event Handling - Graphics - MDI forms.

**REFERENCE BOOKS:**

1. AL Stevens, TEACH YOURSELF WINDOWS 3.1, BPB Publications (1994)
2. P.K. McBride, PROGRAMMING IN VISUAL BASIC, BPB Publications (1995)

**Paper 3.3: INTERNET AND JAVA PROGRAMMING**

**UNIT-1**

Introduction to Networks - Network Topologies - Structure, Architecture, Design Issues, layers - Client Server Model. Protocols : TCP/IP - Importance, Terminology, Framework, protocol Stack - IP : Network layer - Internet address protocols - IP diagram, Header, Fragmentation, routing. TCP : Transport layer, ports - IP ports - TCP-Ports usage - TCP application layer.

**UNIT-2**

Domain Name System - Name Server Concepts - Resolver - Finger user information protocol - Internet E-mail - Mail Transfer Protocol - File Transer Protocols - Managing Data - Telenet - HTTP - HTTP client Requests - URI - URLs - HTTP methods - Programming the WEB - Creating Web Server.

**UNIT-3**

Internet at Home - Entertainment on the Internet - Television and the Net, Movies and Music - At Office : Electronic Commerce - Shopping on the internet, Doing Business, Finding Job - At School : Internet Resources for K-12 Teachers, Self Education - Learning about science, Technology and the Internet Itself

**UNIT-4**

Basics of Java - Object oriented programming - Principles - JAVA data types: Simple, Floating point, Character, Boolean - Variable Declaration - Dynamic Initialization - Type conversion and Casting - Arrays - One-dimensional and multidimensional. Operators and statements.

**UNIT-5**

Java Classes and Objects - Fundamentals - Object Reference variables - Introducing methods - Constructors - Overloading methods - Inheritance - I/O applets : I/O basics and applet fundamentals - String Handling: Constructor, length, operations, character extraction, comparison, searching and modifying.

**REFERENCE BOOKS:**

1.  Kris Jamsa and Ken Cope, Internet Programming, Galgotia Publications Pvt. Ltd. (1995)

2. Neil Randall, Teach Yourself The Internet in a week, Second Edition, PHI Pvt. Ltd. (1996)

3. Patrick Naughton and Herbert Schildt, Java - The Complete Reference, Tata McGraw Hill Publishing Company Ltd.

**Paper 3.4: RDBMS**

**UNIT-1**

DBMS : The Data Base Scheme - Schema and Subschema - Manipulative capabilities - Guidelines - Different user interfaces.

**UNIT-2**

Relational Model : Concepts of Relational Model - Comments on the Relational Model : Semantic issues, Navigation, Efficiency - DBMS based on the Relational Model : The Mapping operation - Data Manipulation facilities - Data Definition facilities - Data Control facilities.

**UNIT-3**

Introduction to Oracle : Types of Databases, Relational Database properties, Benefits of Oracle, Client/Server Systems - Oracle Database Architecture : Overview of Oracle Architecture, Processes, Physical files, CPU, Network, System Tables, Oracle Users, Logical structures

**UNIT-4**

Oracle fundamentals : Elements of SQL language : Database Objects, Data Access SQL commands, DML commands - Oracle Queries Basic query, Using Expressions, Working with Null Values, Joining Multiple Tables in a query, Selecting Distinct values, Using subqueries, Unions and Multiple-Part Queries.

**UNIT-5**

Table Creation : CREATE TABLE Statement, Privileges required, Describing Table Definitions, Modifying Tables, Renaming a Table, Copying another table, Dropping a Table - Other Database Objects Reason for Database Objects, Indexes - Embedded SQL : Languages supported by Oracle Precompiler, Embedded SQL statements.

**REFERENCE BOOKS:**

1. Naveen Prakash, Introduction to Data base Management, Tata McGraw-Hill Publishing Company Ltd.

2. Singh, Leigh, Zafian, et al., Oracle 7.3 Developer's Guide, Techmedia Publications.

**Paper 3.5: MANAGEMENT PRINCIPLES AND TECHNIQUES**

**UNIT-1**

Introduction : Concept and Definition of Management - Management Functions - Principles - Planning - Planning Process - Decision-making - Organising - Structure - Delegation - Staffing - Direction - communication - Motivation - Leadership - Control.

**UNIT-2**

Linear Programming: Introduction - History of OR - Meaning of OR - Principles of Modelling - Application of OR - Formulation of LP models - Graphical solution in Maximization problem and Minimization Problem - Algebraic solutions - Simplex method - Feasibility - Optimality - Artificial variables - Duality - Dual - simplex Algorithm - Transportation problem - finding Optimal solution - Assignment problem - Least Time Transportation problems.

**UNIT-3**

PERT/CPM : Arrow (network) diagram representations - Time estimates - critical path - Floats - Construction of Time chart and Resource Levelling - Probability and cost considerations in project scheduling - Shortest Route Problem - Project control

**UNIT-4**

Replacement Theory : Introduction - Various replacement situations - Replacement policy - Variable maintenance costs and fixed money value - Variable maintenance costs and Variable money value - Individual replacement policy - Group replacement policy - Reliability - Applications of Replacement problems in real life problem.

**REFERENCE BOOKS:**

1. Hamdy A Taha, Operations Research An Introduction, Macmillan Publishing Company (1982)

2. Don.T.Philps, A.Ravindran, James.J.Solberg, Operations Research - Principles and Practice, John Wiley & Sons (1976).

3. Richard I Lenin, Charles A.Kirkpatrick, David S Rubin, Quantitative Approach to Management.

**BCA – III YEAR**

Paper 3.6 – LAB-III: ORACLE & VISUAL BASIC

VISUAL BASIC

1) Write and test a VB Program to Print twenty address labels in a two-column format for the address

> THE REGISTRAR
> ALAGAPPA UNIVESITY
> KARAIKUDI-630003.

2) Write and test a VB Program to read in Principal, Number of Years and Rate of Interest through INPUT Boxes, Compute and Print the Simple Interest and Compound Interest through labels.

3) Write and test a VB Program to compute the Surface area and volume of a sphere given the radius. Use Option buttons and INPUT Boxes.

> [Formula: A=4*3,14*R^2, V=4/3*3,14R^3]

4) Write and test a VB Program to compute and print either the SUM or the PRODUCT of the first N natural numbers. Use option button.

5) Write and test a VB Program to compute and print either the sum of odd numbers or even numbers at the user's choice using Label, Text and Option buttons.

6) Write a VB program to do temperature conversion C to F and F to C at user's choice using Label, Text and Enter Key.

7) Write and test a VB Program that allows the user choice among four arithmetic operations of addition, subtraction, multiplication and division with two given numbers.

8) Write and test a VB program to select candidates for four posts, based on their qualifications,

| | |
|---|---|
| MALE AND PG DEGREE | MANAGER |
| MALE, GRADUATE & TYPING | CLERK |
| FEMALE AND PG DEGREE | SECRETARY |
| FEMALE, GRADUATE & TYPING | STENO |

9) Write and test a VB program to display the Day of the given Date and Covert Upper Case from Lower Case to given Word.

10) Write a VB program to calculate Simple Interest or Compound Interest using three command buttons namely Input, Calculate, Display.

<p align="center">∗ ∗ ∗</p>

## *ORACLE PROBLEMS*

1.  Create table MARK with the following structure:

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| REGNO | Numeric | 8 | |
| NAME | Character | 20 | |
| TAMIL | Numeric | 3 | |
| ENGLISH | Numeric | 3 | |
| MATHS | Numeric | 3 | |
| BIOLOGY | Numeric | 3 | |

i)   Add 5 Records.

ii)  Show data in fields REGNO, NAME, TAMIL & BIOLOGY alone on the screen.

iii) Show data in fields REGNO, BIOLOGY & MATHS alone on the screen.

iv)  Show data in fields NAME & REGNO alone on the screen.

v)   Show all fields on the screen.

vi)

2) Create table ADDRESS with the following structure,

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| NAME | character | 20 | |
| STREET | Character | 20 | |
| CITY | Character | 20 | |
| PIN | Numeric | 6 | |

i)      Add 5 Records.

ii)     Display the structure of the table.

iii)    Add the field DISTRICT

iv)    Fill all DISTRICT with MADURAI

v)     Change the PIN to 630003 where city is KARAIKUDI and PIN is 623003.

3) Create table RESULT with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| REGNO | Numeric | 8 | |
| NAME | Character | 20 | |
| MARK1 | Numeric | 3 | |
| MARK2 | Numeric | 3 | |
| MARK3 | Numeric | 3 | |
| TOTAL | Numeric | 3 | |
| RESULT | Character | 4 | |

i)     Add 5 records (Fill all Fields except Total & Result fields),

ii)     Fill TOTAL field with the sum of MARK1, MARK2, and MARK3.

iii)    fill the RESULT field with 'PASS' if TOTAL >= 150 otherwise 'FAIL'

4) Create table PAY with the following structure,

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| EMPNO | Numeric | 8 | |
| NAME | Character | 25 | |
| DOJ | Date | | |
| BPAY | Numeric | 8 | 2 |
| DA | Numeric | 8 | 2 |
| HRA | Numeric | 3 | |
| DEDU | Numeric | 3 | |
| GPAY | Numeric | 8 | 2 |
| NPAY | Numeric | 8 | 2 |

i)     Add 5 Records, (Fill al fields except DA, HRA, DEDU, GPAY and NPAY)

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ii)     Fill DA with 75% of BAY for all employees.

iii)    Fill HRA with 300 for all employees.

iv)    Fill DEDU with 750 for all employees.

v)     Fill GPAY with the sum of BPAY, DA and HRA.

vi)    Fill NPAY with GPAY – DEDU.

vii)   Display EMPNO, NAME, BAPY, DEDU, GPAY, NPAY alone.

5) Create table BIODATA with following structure,

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| NAME | Character | 25 | |
| AGE | Numeric | 2 | |
| SEX | Character | 1 | |
| DEGREE | Character | 8 | |
| CITY | Character | 20 | |

i)      Add 5 records, (BIODATA of 5 employees)

ii)     Display all records of MALE employees.

iii)    Delete all BSC degree holders and then display the table contents.

iv)    Remove all employee records whose AGE is greater than 20.

v)     Display all records having AGE < 20 and CITY is TRICHY.

6) Create table LABEL with the following structure.

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| NAME | Character | 20 | |
| STREET | Character | 20 | |
| CITY | Character | 20 | |
| PIN | Numeric | 6 | |

i)      Add 5 Records.

ii)     Display the  contents of the table.

iii)    Display the Ascending order sorted list with NAME as primary key.

iv)    Display the Descending order sorted list with CITY as primary key.

v)     Display the contents with appropriate HEADINGS.

7) Create table PERSONAL with the following structure.

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| SNO | Numeric | 8 | |
| NAME | Character | 20 | |
| CITY | Character | 20 | |
| PIN | Numeric | 6 | |
| PHONE | Numeric | 6 | |

i) Add 5 Records.

ii) Display the contents of the table.

iii) Display all names.

iv) Display all names without duplicate.

v) Display all names in uppercase, lowercase and Initial Capital letters.

vi) Display all names and length of names.

vii) Display name, city in which only beginning portion of name is known.

8) Create table MARKS with the following structure.

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| REGNO | Numeric | 8 | |
| NAME | Character | 20 | |
| MARK1 | Numeric | 3 | |
| MARK2 | Numeric | 3 | |
| MARK3 | Numeric | 3 | |
| TOTAL | Numeric | 3 | |
| AVG | Numeric | 6 | |
| GRADE | Character | 1 | |

i) Add 5 Records.

ii) Replace all TOTAL with MARK1+MARK2+MARK3 and display the contents.

iii) Replace all AVG with TOTAL/3 and display the contents.

iv) Replace GRADE with the following conditions:

GRADE is A if AVG is greater than or equal to 60

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GRADE is B if AVG is 40 to 59.

GRADE is C if AVG is less than 40.

v)     Display the Maximum marks in each subject.

vi)    Display the Minimum marks in each subject.

vii)   Count the number of records for mark1 >50.

9) Create table SALES with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| SALENO | Numeric | 5 | |
| SALENAME | Character | 20 | |
| SALEAMT | Numeric | 8 | 2 |
| COMM | Numeric | 6 | 2 |
| SALEDATE | Date | | |

i)     Add 5 Records.

ii)    Replace COMM with the following conditions:

If Sales amount is less than 1000 there is no commission.

If Sales amount is greater than or equal to 1000 but less than or equal to 5000, commission is 5% of sales amount.

If Sales amount is greater that 5000, commission is 10%.

iii)   Display all the records.

iv)    Display the records having commission < 1000.

v)     Display the records having commission > 1000.

vi)    Display the Average sales and Average commission.

10)  Create table BLOOD with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| DNO | Numeric | 3 | |
| DNAME | Character | 20 | |
| DOB | Date | | |
| DAGE | Numeric | 2 | |
| DADD1 | Character | 15 | |
| DADD2 | Character | 15 | |
| DCITY | Character | 15 | |
| DPIN | Numeric | 6 | |

|         |           |   |
| ------- | --------- | - |
| DBLOOD  | Character | 3 |
| DSEX    | Character | 1 |

i) Add 5 Records.

ii) Display all the records.

iii) Display the information of donors in the age group 20 to 25 using BETWEEN option.

iv) Display the information of donors having date of birth BETWEEN 01-JAN-55 and 31-DEC-75.

v) Display the information of donors having any of the blood group from the set of blood groups using IN option.

vi) Display the information of female donors with age between 20 and 25 using BETWEEN option.

11) Create table NUMB with the following structure.

| Fieldname | Type    | Width | Decimal |
| --------- | ------- | ----- | ------- |
| NUM       | Numeric | 6     | 2       |
| ABSNO     | Numeric | 6     | 2       |
| SQRTNO    | Numeric | 6     | 2       |
| ROUNDNO   | Numeric | 6     | 2       |
| TRUNCNO   | Numeric | 6     | 2       |
| SQRNO     | Numeric | 6     | 2       |
| **CUBENO** | **Numeric** | **6** | **2** |

i) Add 5 Records. (Some numbers must be negative or decimal)

ii) Display all the records.

iii) Replace ABSNO with absolute value of given numbers.

iv) Replace SQRTNO with square root value of given numbers.

v) Replace ROUNDNO by using ROUND function.

vi) Replace TRUNCNO by using TRUNC function.

vii) Replace SQRNO with square of given numbers.

viii) Replace CUBNO with cube of given numbers.

ix) Display all the records.

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**Course**        **: B.Sc.(Computer Science) [2007-08 onwards]**

Duration            : 3 years
Medium            : English
Eligibility         : A pass in HSC (or) 3years Diploma
Lateral Entry II yr   : 3 yr. Diploma in Computer Engineering / Information
                                Technology/ EEE/ ECE

## *COURSE OF STUDY AND SCHEME OF EXAMINATIONS*

| Code No. | Name of the Course | Max. Mark |
|---|---|---|
| **I Year** | | |
| 1.1 | Part I: Paper I: Tamil/Hindi/Communication Skills | 100 |
| 1.2 | Part II: Paper I: English | 100 |
| 1.3 | Digital Computer Fundamentals | 100 |
| 1.4 | Data Structures Using C | 100 |
| 1.5 | Discrete Mathematics | 100 |
| 1.6 | Computer Lab I (C and Data Structure Lab) | 100 |
| **II Year** | | |
| 2.1 | Part I: Paper II: Tamil/Hindi/Human Skill Development | 100 |
| 2.2 | Part II: Paper II: English | 100 |
| 2.3 | Object Oriented Programming and C++ | 100 |
| 2.4 | Scientific Computing | 100 |
| 2.5 | Application Programs | 100 |
| 2.6 | Computer Lab II (C++ Programming Lab) | 100 |
| 2.7 | Computer Lab III (Application Programs Lab) | 100 |
| **III Year** | | |
| 3.1 | Computer Graphics | 100 |
| 3.2 | Visual Programming | 100 |
| 3.3 | Operating Systems | 100 |
| 3.4 | Internet Programming | 100 |
| 3.5 | RDBMS | 100 |
| 3.6 | Computer Lab – IV (Visual Basic and Oracle Lab) | 100 |
| 3.7 | Computer Lab V (Java Programming Lab) | 100 |

# Paper 1.3: DIGITAL COMPUTER FUNDAMENTALS

**UNIT I**

        Number Systems Machine Codes: Binary, Octal, Decimal and Hexadecimal number systems - Conversion from one base to another base - Use of complements - Binary arithmetic - Number codes and Character codes.

**UNIT II**

        Boolean Algebra and Combinational Circuits: Fundamental concepts of Boolean Algebra - De Morgan's theorems - Simplification of expressions - Sum of products and products of sums - Karnaugh map simplification - Quine-McKluskey method - Two level implementation of Combinatorial Circuits - Encoder - Decoder - Multiplexer - Demultiplexer.

**UNIT III**

        The Arithmetic Logic Unit: Construction of ALU - Integer representation - Half Adder - Full Adder - Parallel Binary Adder - Positive and negative numbers - Addition and subtraction in a parallel arithmetic element.

**UNIT IV**

        Sequential Circuits (Elementary qualitative treatment only) Flip-Flops - Clocks - Gated Flip-Flops - Master Slave Flip-Flops - Shift Registers - Binary Counters - BCD Counters.

**UNIT V**

        Computer Basics - Data Representation - Input-Output Units - Computer Memory – Processor - Computer Generations and Classification.

**REFERENCE BOOKS :**
4. M.Morris Mano, Digital Logic and Computer Design, Prentice-Hall of India, 1979.
5. V.Rajaraman, Fundamentals Of Computers, 3rd edition, Prentice Hall, 1999.
6. Thomas C. Bartee, Digital Computer Fundamentals, Ed6, McGraw Hill ISE (1985).
7. Albert Paul Malvino, Digital Computer Electronics, Tata McGraw Hill (1986).
8. Gear, C.W, Computer Organization and Programming, McGraw-Hill, (1975).

## Paper 1.4:  DATA STRUCTURES USING C

**UNIT I**

Introduction to C - Character set - Identifiers and keywords - Data types - Constants - Variables declarations - operators and Expressions - Input and Output - Entering input data - Writing output data - The gets and puts functions - Branching and Looping - Nested control structures - Switch - Break -Continue - goto.

**UNIT II**

Function - Accessing a Function - Passing arguments to a function - Recursion - Library function - Macros -The C preprocessor - Defining and processing an Array - Passing an array to functions - Multi dimensional array - arrays and String.

**UNIT III**

Pointers - Passing pointers to function - Dynamic memory allocation - Arrays of pointers - Passing functions to other functions - Defining structure - Processing structure - opening and closing a data file - creating a data file - processing a data file.

**UNIT IV**

Introduction to Data structures - Information and meaning - Stack structure - Definition - operations - Queue structure - representation - operations.

**UNIT V**

Linked list - Definition - representation - operation - Singly linked list - Doubly linked list - Trees - Binary trees - Binary tree representation - Representing list as Binary Trees - Trees and their Applications.

**REFERENCE BOOKS :**
1. Byron Gottfried, Programming with C, 1996, McGraw Hill International Edition,
2. Yedidyah Langsam, Moshe J.Augenstein,Aaron M.Tenenbaum, Data Structures Using C, 1990, Prentice-Hall, Second Edition.

# Paper 1.5: DISCRETE MATHEMATICS

## UNIT I

Propositional calculus: Propositions and compound propositions, connectives, Logical operations - Propositions and Truth tables, Tautologies and contradictions, Logical equivalence - Algebra of proposition - conditional and Bi-conditional statements – Quantifiers - Negation of quantifier statements.

## UNIT II

Set Theory: Sets Basic concepts notation inclusion and equality of sets - Power set, set operations – Relations - composition of relations, Equivalence relations, partial order relation - n-ary relations.

## UNIT III

Functions: one-to-one, onto and invertible functions - Mathematical functions, Exponential and Logarithmic functions - Recursively Defined functions - Algorithms and Functions - complexity of Algorithms.

## UNIT IV

Algebraic systems - Examples and General properties - semi-groups and Monoids - Definitions and Examples - Groups: Definition and examples -Cosets and Lagrange's theorem - Normal subgroups - Group homomorphism.

## UNIT V

Graph Theory: Graphs and multi-graphs sub-graph - Isomorphic and Homeomorphic Graphs - Paths connectivity - The Bridges of Knonigsberg, Traversable multigraphs Labeled and weight graphs - complete regular and Bipartite graphs - Tree graphs - planar graphs, Graph colorings, Representation of graph in Computer memory.

## REFERENCE BOOKS

1. Venkatraman M K, Sridharan N and Chandrasekaran N, Discrete Mathematics, The National Publishing Company, 2000.
2. J.P. Tremblay and R. Manohar Discrete mathematical structures with applications to Computer Science Mc.Graw Hill Book Company, New York, 1975.

# Paper 1.6 – Computer Lab I (C and DATA STRUCTURES LAB)

28) Write a C program to add two numbers.

29) Write a C program to find the Area of a circle.

30) Write a C program to calculate Simple Interest.

31) Write a C program to find square root, square and cube of any number.

32) Write a C program to calculate Compound Interest.

33) Write a C program to input a temperature in Celsius and find the corresponding temperature in Fahrenheit. Use the formula f = 9 / 5 * C + 32.

34) Write a C program to convert a given number into words for numbers 1 to 5. Ex. 1 to ONE, 2 to TWO and 5 to FIVE.

35) Write a C program to input a basic pay and calculate Gross pay and Net pay

INCOME:
    HRA         = 15% OF BASICPAY
    DA          = 90% OF BASICPAY
    GROSSPAY    = BASICPAY + DA + HRA
DEDUCTIONS :
    PF                  = 10% OF BASICPAY
    WCHARGE             = 200
    DEDUCTIONS = PF + WCHARGE
NET PAY = GROSS PAY – DEDUCTIONS

36) Write a C program to compute commission earned by a salesman according to the scheme given below:

| SALES AMOUNT | COMMISSION % |
|---|---|
| Upto Rs. 1000 | 0 |
| Above 1000 upto 5000 | 5 |
| Above 5000 | 10 |

37) There are 10 students in an class. Their names and marks in three different subjects are given. If a student takes more than 40 marks in each subject, then he is declared 'PASS'. Otherwise 'FAIL'. Write a C program to do the above.

38) Write a C program that receives the data such as age and name of person to check the eligibility for voting. Take the condition that if a person is more than 18 years old he is eligible to vote. Else display the number of years, he has to wait for voting.

39) A man is paid at the hourly rate of Rs. 15/- per hour for the first 45 hours worked. Thereafter, overtime is paid at 1.5 times the hourly rate for the next 25 hours and 2 times the hourly rate for further hours worked per week, calculate and Print his gross weekly wage.

40) Write a C program to find the Biggest of 5 Nos. Modify the program to find the biggest of 10 Nos.

41) Write a C program to sort 10 numbers. in ascending order.

42) Write a C program to concatenate two given strings and find the length of the concatenated string.

43) Write a C program to find the factorial of a given number using FUNCTION declaration.

44) Write a C program to find Simple & Compound interests using FUNCTION declaration.

45) Write a C program to implement push and pop operations on stack.

46) Write a C program to evaluate the given mathematical expression using stack.

47) rite a c program to implement insert and delete operations on Linked List structure.

48) Write a C program to implement insert and delete operations on Queue using array concept.

49) Write a C program for linked list implementation of Queue operations.

50) Write a C program to sort 10 Nos. in Ascending order with naming of variable and the value before and after sorting.

51) Define Selection sort write a C program to sort a set of elements using selection sort.

52) Write a C program to sort a set of elements using Insertion sort.

53) Write a menu driven program in C to find an element using Linear and binary search methods.

# Paper 2.3: OBJECT ORIENTED PROGRAMMING AND C++

**UNIT-I**

Introduction to C++ - Object Oriented Programming - principles - basic concepts - benefits - languages of OOP. C++ data types - operators - cin and cout streams - manipulators - functions.

**UNIT-II**

Objects and classes - messages - access specifier - data encapsulation -definition and declaration of member functions - constructor and destructor - inline function - friend function - static data and member function.

**UNIT-III**

Pointers : Pointers and references - this pointer - strings - new and delete operators - dynamic constructor - problems with pointer reference - copy constructor.

**UNIT-IV**

Polymorphism : compile time polymorphism - function overloading - operator overloading - overloading unary operators - overloading binary operators - pitfalls of operator overloading

**UNIT-V**

Reusability : Inheritance - types of inheritance - inheritance access specifier - derived and base classes - runtime polymorphism - static and dynamic binding - virtual function - pure virtual function - virtual base class - abstract class.

**REFERENCE BOOKS**

1. E.Balagurusamy, Object oriented programming in C++, 2002, TMH Publications Ltd.

2. Robert Lafore, Object Oriented Programming in Turbo C++, 2001, Galgotia Publ. Ltd.

# Paper 2.4:  SCIENTIFIC COMPUTING

## Unit I

Linear System Of Equations: Solution of Systems of equations – Solution of Simultaneous linear equations – Gauss elimination methods – Gauss Jordan methods, Jacobi and Gauss Seidal iterative methods.

## Unit III

Numerical Differentiation And Integration: Interpolation, Differentiation and integration – difference table – Newton's forward and backward interpolation –Lagrangian interpolation –Differentiation formulae– Trapezoidal and Simpson rule Gaussian – Quadrature

## Unit III

Collection and Representation of Experimental data – Measures of Central Tendency and Location: Arithmetic Mean, Median, Mode, Position of averages – Measures of Dispersion: mean deviation, variance and standard deviation - Curve fitting by methods of least squares – Fitting of a straight line, Parabola and exponential curve.

## Unit IV

Probability Distributions: Probability axioms- Bayes Theorem- Discrete random variables and Continuous random variables – Density & Distribution functions - Joint and marginal distributions – Conditional distributions - Characteristic function- moment generating function- expectation.

## Unit V

Sampling - Small sample, t-test, F-test, $\chi 2$ –test, ANOVA one way classification and two way classification

**REFERENCE BOOKS**
1.  Grewal B.S, Numerical methods in Engineering and Science, Khanna Publishers, 1994.
2.  John.E..Freund, Irwin Miller, Marylees Miller, Mathematical Statistics with Applications, Seventh Edition, Prentice Hall of India, 2004.
3.  A.M.Natarajan & A.Tamilarasi, Probability Random Processes and Queuing theory, New Age International Publishers, 2nd Edition, 2005.
4.  S.K. Gupta, Numerical Methods for Engineers, New age International Publishers , 1995.
5.  S.C. Gupta and V.K. Kapoor, Fundamentals of Mathematical Statistics, 11th Edition, Sultan Chand & Sons, New Delhi, 2002.
6.  D.W. Jordan and P. Smith, Mathematical Techniques, 3rd Edn, Oxford University Press, New Delhi, 2002.

# Paper 2.5: APPLICATION PROGRAMS

**UNIT I**

Windows: Working with windows elements –Windows Desktop – View Drives with My Computer - Managing files with Windows Explorer – Working with multiple windows – Office Shortcut Bar – Start and Exit Office application – Menu Commands – Toolbars – Dialog boxes – Getting help in MS-Office – Creating, Opening, Saving Files.

**UNIT II**

MS-Word – Creating a New Word Document – Typing, Edit, Delete Text – Editing Keys – Select Text – Moving around the Document – Moving and Copying Text – Find and Replace Text – Insert Date or Time – Spell Checking – Getting often-used phrases – Table handling – Printing mailing labels – Formatting – Make Text Bold, Italic Underline – Changing Font and Size – Change default font – Copy formatting – Align Text – Indent Text – Create bullet and numbered list – Set Tabs – Using Ruler – Change margins – Change Line, paragraph spacing – Page numbering – Headers and Footers – Set up Columns – Templates and Wizards – Printing a document – Print preview – Page Orientation - Zoom in and Zoom out pages – Mailmerge – Creating form letters – Merging a form letter with data.

**UNIT III**

MS-EXCEL – Working with worksheets – Entering Text, Numbers, Date or Time – Formula Bar – Fill in Data – Autocomplete – Entering formulas - Absolute addresses in formulas - Working with Ranges – Functions – Editing, Deleting entries – Move and Copy data – Find and Replace Data – Insert and delete Rows and Columns – Resize Columns and Rows - Formatting – Bold, Italic, Underline, Font, Size Changes – Conditional Formatting – Change alignment – Number formatting – Borders – Headers and Footers – Creating a Chart – Working with Chart object – Change chart data, chart type – Formatting chart series – Database – Building an Excel Database – Add, Edit, Delete Records – Search database – Sort Excel database.

**UNIT IV**

MS-POWER POINT – Create and edit Power Point presentation – Editing Text – Add or Delete a Slide – Moving from slide to slide – Change views – Create graph chart, organization chart – Format and run a presentation – Text formatting and alignment – Drawing on slides – Color Scheme – Background – Using Design Template – Auto layout – Adding speaker notes – View Slide Show – Handouts.

**UNIT V**

MS-ACCESS & Sharing Office Data:- Creating a New Database - Creating and saving a table - Primary Key creation - Adding, Editing and Deleting fields - Changing the view and Moving fields - Data Entry and Editing - Adding, Inserting and Deleting Records - Adjusting Column Widths - Hiding Columns - Finding Records - Sorting Records - Creating, Saving and Editing a Query - Forms - Autoform - Using Report Wizard - Creating and Printing Reports - Sharing Office Data – Copy and Paste using Clipboard – Insert Copied data as a link – Embed copied data in another document – Combine Excel data and charts with Word Documents – Inserting Graphics - Group related documents with Binder.

**REFERENCE BOOKS:**

1. Jennifer fulton, Sherri Kinkoph, and Joe Kraynak, The Big Basics Book of Microsoft Office 1997, PHI, 1998.
2. Laura Acklen et al, Microsoft Office 97 Professional Essentials,EEE Que E&T, PHI (1998)

## Paper 2.6 Computer Lab II (C++ Programming Lab)

1. Write a C++ program to reverse the sentence and find the given sentence is palindrome or not.
2. Write a temperature conversion program that gives the user the option of converting fahrenheit to celcius or celcius to fahrenheit. Then carry out the conversion. Use floating point numbers.
3. Create a class called TIME that has integer data elements for hours, minutes, seconds. The constructors should initialize these data elements to specified value, if given, and otherwise to 0. A member function should display it, in 11:50:45 format. The final member function should add two objects of type Time passed as arguments.
4. Using operator overloading, write a C++ program to find the different and total length of given two various tubes specified in meters and centimeters.
5. Assumes you want to generate a table of multiples of any given number. Write a program that allows the user to enter the number, and then generates the table, formatting it into ten columns and 20 lines.
6. Write a program to process students marks with the help of classes. The class has private variables, for name, mark1, mark2, mark3. It has two member functions - getdata()- to get input. - result() - to print the results. All subjects mark must be >= 50 for Pass otherwise Fail
7. Using dynamic constructors write a C++ program to concatenate two given strings.
8. Create a class Employee that contains a Employee number, Employee name and address. Write a Menu driven C++ program to get the 'n' number of employee details and display all details in employee namewise sorted order.
9. Using Pointers create a class and write a program to get the n names and display them in sorted order.
10. Create a class DONOR that contains donor number, donor name, age, address, sex, blood group.
   Write a Menu driven C++ program to display the number, name and address of the donors for the following categories:
       (i) blood donors having the blood group O+
       (ii) blood donors in the age group between 16 to 25
       (iii) female donors having blood group A in the age between 19 and 24.
Write a menu driven C++ program to add and subtract given two matrices of order m x n defined in class, using operator overloading.
11. 12. Create a class called Employee that contains Employee number, employee name, designation, basic pay, deductions(LIC,PF). Include a member function to getdata from user for 'n' employees. Write a C++ program to prepare the payslips for 'n' number of employees using the following details:
       D.A = 40% of basicpay
       H.R.A = 25% of Basicpay
       Gpay = Basicpay+D.A+H.R.A

Npay = Gpay-deductions

The Result of Problem is in given format:

```
-----------------------------------------------------------------------------
Emp.no  Emp.name  Basic  D.A  HRA  LIC  PF  Gpay  Npay
-----------------------------------------------------------------------------
---        --              --   --   --   --   --   ---   ---
-----------------------------------------------------------------------------
```

12. Imagine a publishing company that markets both books and audio-cassette versions of its works. Create a class publication that stores the title (a string) and price (type float) of a publication. From this class derive two classes:

    BOOK, which adds a page count (type int ).and TAPE, which adds a length count (type int). Each of these three classes should have a getdata() function to get its data from the user at the keyboard, and a putdata() function to display its data. Write a main() program to test the book and tape classes by creating instances of them, asking the user to fill in their data with getdata() and then displaying the data with putdata().

13. Raising a number n to power p is the same as multiplying by itself t times. Write a function called power() that takes a double value for n and an int value for p, and returns the result as double value. Use default argument of 2 for p, so that if this argument is omitted, the number will be squared. Write a main() function that gets values from the user to test this function.

14. Create a equivalent of a four-function calculator. The program should request the user to enter a number, an operator, and another number. It should then carry out the specified arithmetical operations: adding, multiplying, subtracting, dividing the two numbers. Finally it should display the result. When it finishes the calculation, the program should ask if the user wants to do another calculation.

15. 16. Create a class that imitates part of the functionality of the basic data type int. Call the class Int. The only data in this class is an integer variable. Include member functions to initialize an Int to zero, to initialize it to an integer value, to display it, and to add two Int values. Write a program that exercise this class by creating to initialized and one uninitialized Int values, adding these two initialized values and placing the sum in the uninitialized value, and then displaying the result.

16. Create a class called employee that contains a name and an employee number. Include a member function called getdata() to get data from the user, another function called putdata() to display the data. Write a main() program to exercise this class. It should create an array of type employee and then invite the user to input data for n employees.

17. Write a program using Polymorphism to calculate the square of any two numbers of type int, float, double and long.

18. Write a function called reversit() that reverse a string(an array of char). Use a for loop that swaps the first and last characters, then the second and next-to-last characters and so on. The string should be passed to reversit() as an argument. Write a program to exercise reversit(). The program should get a string from the user, call reversit(), and print out the result. Use an input method that allows embedded blanks. Test the program with Napolean's famous phrase "Able was I ere I saw Elba".

19. Create a class Int to Overload all five integer arithmetic operators (+,-,*,/,and %) so that they operate on objects of type Int. If the result of any such arithmetic operation exceeds the normal range of int's - from -32,768 ro 32,767- have the operator print a warning and terminate the program. Write a program to test this class.

20. Write a program that reads a group of numbers from the user and places them in array of type float. Once the numbers are sorted in the array, the program should average them and print the result. Use Pointer notation whenever possible.

21. Write a program using friend function frifunc() which can act on the classes alpha and beta.Using constructors fix the values for alpha and beta.

22. 23. Write a program that emulates the DOS COPY command. That is, it should copy the contents of a character file(such as any cpp file) to another file. Invoke the program with two command line arguments - the source file and the destination file. C> copy srsfile.ext destfile.ext In the program, check that the user has typed the correct number of command line arguments, and that the files specified can be opened. Improve on the DOS TYPE command by having the program signal an error if the destination file already exits.

23. Write a C++ program which will accept a string of 10 characters in length from the key board and count the occurrences of each of the five vowels in the string. The o/p should be in a (tapped) format similar to this example.

```
A  E  I  O  U
0  1  0  0  1
```

24. 25. Create a C++ class for a stock item abstract data type. It should have the attributes of stock levels(an integer) and unit price (a float ). Define the methods to t return the values of these two attributes and to set them using parameters. Add two more methods to allow stock receipts and issues updating the stocklevel as appropriate. Write a menu driven c++ program to solve the problem.

## Paper 2.7 Computer Lab III (Application Programs Lab)

**MS-WORD**

1. Prepare your resume with your photograph inserted. Use Table, bullets and different color features.

2. Prepare the First page of M.C.A. PRACTICAL RECORD NOTE book with picture insertion and alignment.

3. Prepare a news report using two columns, insert a picture in the first column and make the text flow around it.

4. Type lecture notes and provide audio explanation with the help of sound files.

5. Prepare an invitation for a function to be conducted in your institution. Use different text orientation and pictures to make it attractive.

6. Create a table of student data that contains REGNO, NAME, ENGLISH, TAMIL, and MATHS marks. Add a new column named TOTAL and find the row total for each student.

   Add two rows named TOTAL, AVERAGE. Find the total and average values for each subject mark. Convert the table to text.

7. Create a form letter that informs the customer about the date of maturity of a deposit amount in a commercial bank and request the customer for renewal. Mailmerge it with an Access Database containing all the customer data. Prepare letters for customers whose due date falls in a specific range of dates.

**MS-EXCEL**

1. Create the following Inventory Worksheet in MS-EXCEL :

| ITEMNO | NAME | PRICE | QUANTITY | STOCK ON HAND | REORDER QUANTITY LEVEL | PURCHASED | ISSUED |
|--------|------|-------|----------|---------------|------------------------|-----------|--------|
| 101 | BOLTS | 2.00 | 1000 | 500 | 300 | 800 | 200 |

   i) Enter all the data items except QUANTITY ON HAND for 10 items.
   ii) Find QUANTITY ON HAND using the formula

STOCK QUANTITY = QUANTITY ON HAND + QUANTITY PURCHASED – QUANTITY ISSUED

Find total stock value in inventory as a product of total quantity hand and total price($\sum$ quantity on hand * $\sum$ price). Display all the items in red color whose quantity on hand is below reorder level.

2. Create the following worksheet in EXCEL for Electricity Bill

| CONSUMER NO. | TYPE | NAME | PMR | CMR | UNITS | BILL |
|---|---|---|---|---|---|---|
| 101 | D | RAM | 545 | 645 | | |

 i) Add data for 10 consumers with type 'D' for domestic user and type 'I' for Industrial user.

 ii) Find UNITS column for each customer and calculate bill using the slab given below:

TYPE **D** CONSUMER

| UNITS CONSUMED | RATE/UNIT Rs. |
|---|---|
| FIRST 100 | 0.80 |
| NEXT 200 | 1.25 |
| REMAINING | 2.00 |

TYPE **I** CONSUMER

| UNITS CONSUMED | RATE/UNIT Rs. |
|---|---|
| FIRST 100 | 1.10 |
| NEXT 900 | 2.40 |
| REMAINING | 3.50 |

 iii) All the consumers should be charged a minimum bill of Rs. 20/- even if their bill amount is below Rs. 20/-

3. Create a Worksheet in Ms-Excel with following columns:

 Employee number, Employee Name, designation, Basic pay, Hra, Da, Lic, Pf, Grosspay, Netpay.

i) Type data for empno,empname,designation,Basicpay and Lic,Pf
ii) Calculate   Hra        = 20% of Basic
                Da         = 30% of Basic
              Grosspay = Basic +Hra + Da
              Netpay     = Grosspay -(Lic +pf)

iii) Draw the bar chart between emp name and  Netpay
iv) Sort the designation column and employee column name at a time.

4. Create a Worksheet with the following columns.

        Salesman number, Salesman Name, City, Product Name, Sale Amount.

        Add three records for 5 different salesmen who have carried out sales of different products in different cities.  Find the following:
                i) Citywise Total Sales
                ii) Salesmanwise total sales
                iii) Productwise total sales iv) Grand Total sales.

5. Create Internal Marks assessment worksheet with the following columns:

    REGNO, NAME, SEX, TEST1, TEST2, TEST3, TEST AVERAGE,
    ATTENDED DAYS, ATTENDANCE % , BONU MARK, INTERNAL MARK

i)   Add data for 20 students (Test marks are out of 30)
ii)  Compute TEST AVERAGE as average mark of best two out of three tests.
iii) Maximum number of working days is 50. Each student should secure atleast 80%
     attendance.
iv) Provide 1 bonus mark for each 1% attendance above eligibility limit 80%
v)  Compute Internal mark as TEST AVERAGE+Bonus Mark
vi) Sort the data in alphabetical order of name.
vii) Filter data for male and female students alone, who have attendance % below 80.

6.  The  following  were  the  observations  made  in  certain experiments for the values y and
    given the values of x.

                        X : 1  2   3   4   5   6   7   8   9   10

                        Y : 10 30  45  25  15  28  40  32  15  35

Compute the Following:

i) Find Mean,Median and Standard deviation
ii) Correlation coefficient between x and y.
iii) Draw the Bar Chart and Shading cells.
iv) Draw a Chart in Excel and Paste it an Word.

7. Create two worksheets containing day to day house hold expenses for the months
   January and February 2005, with the following columns:

   ITEM        AMOUNT
   Stationery      25.00

   i)    Add 10 different items as shown above, for two months in two different
         worksheets.
   ii)   Consolidate both the months data and find the total expenses on each item.
   iii)  Find the Total expenses for two months.
   iv)   Find the maximum and minimum expense amount.

8. Create a data table to create a ready reckoner table for a commercial bank that contains
simple interest for Rs. 1,000/- with varying period and interest rates.  Create the table as shown
below:

READY RECKONER TABLE FOR INTEREST CALCULATION PER 1000

| PERIOD | INTEREST RATE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | 11% |
| 1 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |

9. Draw Line, Bar, PIE charts for the data given below:

ABC COMPANY LIMITED

|       | YEAR | SALES | COST | PROFIT |
|-------|------|-------|------|--------|
|       | 1991 | 1000  | 400  | 600    |

Add data for 10 years from 1991 to 2000.  Provide titles, legends, grids and data labels.

## MS-ACCESS

### Instructions: Open a New database and add tables

1)  Create employee table with the fields EMPNO, NAME, AGE, SEX, STREET, CITY, PIN, SALARY.

      i)     Add data for 20 employees

      ii)    Write a query to display all the male employees whose salary is between 1000 and 5000 and living in city "CHENNAI".

      iii)   Write a query to display all the female employees whose ages are in the range 50-60

      iv)   Show all the records in the table for the city "TRICHY" by filtering.

2)  Create STUDENT table with the following fields REGNO,NAME, MARK1, MARK2, MARK3.  Create ADDRESS table with fields REGNO,STREET, CITY and PIN.

      i)     Write a query to display REGNO,NAME and total of all the three subject marks.

      ii)    Write a query to display REGNO,NAME, STREET, CITY, PIN and total of all the three subject marks.

3) Create Inventory table with fields ITEMNO,NAME,QUANTITY ON HAND, REORDER LEVEL.

      i) Create a form in custom format.

      ii)  Create a query REORDER to show all the items

      iii)  Create a macro that executes REORDER query automatically.

4)  Create STUDENT table with fields REGNO,I1,E1,I2,E2,I3,E3,I4,E4,I5,E5(internal and external marks in five subjects) and table SUBJECT with fields SCODE1, SNAME1,SCODE2,SNAME2,SCODE3,SNAME3,SCODE4,SNAME4,SCODE5,    SNAME5 (Subject Code and Subject Names for Five subjects). Create a report to print marksheets for all the student in the following format.

# ALAGAPPA UNIVERSITY, KARAIKUDI

## STATEMENT OF MARKS

**REGNO:05315001**                                              **NAME : RAMANA S**

| SUBCODE | SUBJECT NAME | INTERNAL | EXTERNAL | TOTAL | RESULT |
|---------|--------------|----------|----------|-------|--------|
| 101 | SYSTEMS ANALYSIS | 20 | 40 | 60 | PASS |
| 102 | DBMS | 22 | 50 | 72 | PASS |
| 103 | VISUAL PROGRAMING | 20 | 38 | 58 | PASS |
| 104 | INTERNET PROGRAMMING | 21 | 27 | 48 | FAIL |
| 105 | COMPILER DESIGN | 28 | 30 | 58 | PASS |
| | | | TOTAL | 248 | |

    i)    Condition for passing a subject : A minimum of 35 marks in external and 50 marks in total.

    ii)   Grand total should not include total in failed subjects.

    iii)  Display FAIL in red color.

5) Create two tables SALES1,SALES2 and join them to produce a Third table SALES3.

## Paper 3.1: COMPUTER GRAPHICS

**UNIT I**

Introduction : Overview - Brief History - Applications of Computer Graphics - Video Display Generation - Input Devices - Hard copy Output Devices - Graphics System Software. Output Primitives : Point Plotting - Line Draw Algorithms - Using Equation of a Line - DDA - Bresenham's algorithm - Circle Generation Algorithms - Drawing Ellipse - Other Geometric Shapes - Region Filling Techniques.

**UNIT II**

Two Dimensional Transformations : Transformation Principles - Basic Transformations - Matrix Representation - Composite Transformations. Two Dimensional Viewing and Clipping : Viewing Transformations - Windows and viewports - Aspect Ratio - Clipping and Shielding : Point Clipping - Line segment clipping - Convex Polygon clipping - Sutherland Hodgman Algorithm.

**UNIT III**

Three Dimensional Transformations: Concepts - Basic Transformations: Translation, Scaling, Rotation and Mirror Reflection - Matrix Representation - Composite Transformations.

**UNIT IV**

Three Dimensional Viewing and Clipping : Viewing Process - Three Dimensional Viewing : Specifying Projection Plane and view volume - Clipping : Clipping against a finite view volume - Cohen Sutherland Algorithm - Constructing a three dimensional view - Hidden Surface Algorithm : Depth Comparison - Z-Buffer Algorithm.

**UNIT V**

User Interface Design : Components of User Interface - The User's Model - The Command Language - Styles of Command Language - Information Display - Feedback

**REFERENCE BOOKS:**

1. M. Newman and F. Sproull, Interactive Computer Graphics, 1979 McGraw Hill
2. Plastok and Gordon Kalley, Computer Graphics, 1986, McGraw Hill.

# Paper 3.2: VISUAL PROGRAMMING

## UNIT-I

Introduction to Windows - Windows Graphic User Interface (GUI) - Getting Started with Windows - Required Hardware and Software - Format of a Window - Icons - Selecting, Moving, Sizing Windows - Menus - Help.

## UNIT-II

Program, File & Print Managers - Running Applications - Mutitasking - Clipboard - Control Panel - Print Manager - Write - Text formatting - Paintbrush - Picture Attributes - Drawing Tools - Windows Power User - Operating Modes - PIF Editor - OLE - Multimedia Windows.

## UNIT-III

Visual Basic Concepts - Event-Driven Programming - Terminology - Working Screen - Controls and Events - Menu System - Programming Language - Tools: MsgBox, InputBox, Scroll Bars, Frames, CheckBox, Menus.

## UNIT-IV

Program Design - Form and Controls - Writing the Code - Saving, Running and Testing - Making EXE File - Printouts - Program Flow: Logical Testing - Branching with IF, CASE, FOR..NEXT, DO Loops, WHILE..WEND.

## UNIT-V

Procedures, Functions, Forms and Arrays - Creating Procedures, functions - Recursive Functions- Multiple Forms - Startup Forms - SubMain Procedure - Arrays and Loops - Control Arrays - Indexing and Event Handling - Graphics - MDI forms.

**REFERENCE BOOKS:**

3. AL Stevens, Teach Yourself Windows 3.1, 1994, BPB Publications.

4. P.K. McBride, Programming In Visual Basic, 1995, BPB Publications.

# Paper 3.3: OPERATING SYSTEMS

## UNIT I

Introduction:  What is an operating system - History of Operating systems  - Operating system concepts - System calls  -  Operating system structure.

## UNIT II

Process  Management:   Introduction to processes  -  Interprocess Communication: Race  conditions  - Critical  sections  -  Mutual exclusion  -  Semaphores - Event counters - Monitors  -  Message Passing - Process Scheduling - Round robin scheduling  -  Priority Scheduling - Multiple queues - Shortest job first - Policy driven scheduling - Two level scheduling.

## UNIT III

Input/Output Management:   I/O Devices - Device  Controllers  - Goals  of  I/O Software - Interrupt handlers - Device  drivers - Device-independent I/O  Software - User-space  I/O  Software  - Deadlocks: Resources - Deadlock modeling - Detection and Recovery  - Deadlock Prevention - Avoidance.

## UNIT IV

Memory  Management:    Memory  management  without  swapping  or  paging: Multiprogramming  without swapping or paging - Multiprogramming and  Memory  usage - multiprogramming  with  fixed  partitions  - swapping:  Multiprogramming  with  variable partitions  -  Memory management  with Bit-maps, Linked-lists and Buddy System   - Analysis   of  Swapping  systems  - Virtual  Memory: Paging   - Segmentation - Page replacement algorithms.

## UNIT V

File  Management:  File  basics  - Directories  - Disk   space management - File storage - Directory structure - shared files  - File system reliability - File system Performance - File  servers - Security - Protection mechanisms.

## REFERENCE BOOKS:

1.  James L. Peterson and Abraham Silberschatz, Operating System Concepts, 2001, Addison   Wesley.

2.  Andrew S.Tanenbaum, Operating Systems Design and Implementation,  3rd edition, 2006,  Prentice Hall.

3.  Philippe A, Janson, Operating Systems Structures and Mechanisms, 1985, Academic Press.

4.  Harvey M. Deitel, An Introduction to Operating Systems, 2003, Addison Wesley (1984).

5.  Stuart E. Madnick and John J. Donovan, Operating Systems, 1974, McGraw Hill.

6.  Per Brinch Hansen Operating System Principles Prentice-Hall of India (1973).

## Paper 3.4: INTERNET PROGRAMMING

**UNIT-I**

Introduction to Networks - Network Topologies - Structure, Architecture, Design Issues, layers - Client Server Model. Protocols : TCP/IP - Importance, Terminology, Framework, protocol Stack - IP : Network layer - Internet address protocols - IP diagram, Header, Fragmentation, routing. TCP : Transport layer, ports - IP ports - TCP-Ports usage - TCP application layer.

**UNIT-II**

Domain Name System - Name Server Concepts - Resolver - Finger user information protocol - Internet E-mail - Mail Transfer Protocol - File Transer Protocols - Managing Data - Telenet - HTTP - HTTP client Requests - URI - URLs - HTTP methods - Programming the WEB - Creating Web Server.

**UNIT-III**

Internet at Home - Entertainment on the Internet - Television and the Net, Movies and Music - At Office : Electronic Commerce - Shopping on the internet, Doing Business, Finding Job - At School : Internet Resources for K-12 Teachers, Self Education - Learning about science, Technology and the Internet Itself

**UNIT-IV**

Basics of Java - Object oriented programming - Principles - JAVA data types: Simple, Floating point, Character, Boolean - Variable Declaration - Dynamic Initialization - Type conversion and Casting - Arrays - One-dimensional and multidimensional. Operators and statements.

**UNIT-V**

Java Classes and Objects - Fundamentals - Object Reference variables - Introducing methods - Constructors - Overloading methods - Inheritance - I/O applets : I/O basics and applet fundamentals - String Handling: Constructor, length, operations, character extraction, comparison, searching and modifying.

**REFERENCE BOOKS:**

4. Kris Jamsa and Ken Cope, Internet Programming, 1995, Galgotia Publications Pvt. Ltd.

5. Neil Randall, Teach Yourself - The Internet in a week, Second Edition, 1996, PHI Pvt. Ltd.

6. Patrick Naughton and Herbert Schildt, Java - The Complete Reference, 2004, Tata McGraw Hill Publishing Company Ltd.

# Paper 3.5: RDBMS

**UNIT I**

DBMS: Database - Database Management System - Features - Advantages - Data Base Scheme - Schema and Subschema - Manipulative capabilities - Guidelines - Different User Interfaces.

**UNIT II**

Relational Model : Concepts of Relational Model - Comments on the Relational Model: Semantic issues, Navigation, Efficiency - DBMS based on the Relational Model: The mapping operation - Data Manipulation facilities - Data Definition facilities - Data Control facilities.

**UNIT III**

Introduction to Oracle: Types of Databases, Relational Database properties, Benefits of Oracle, Client/Server Systems - Oracle Database Architecture: Overview of Oracle Architecture, Processes, Physical files, CPU, Network System Tables, Oracle Users, Logical Structures.

**UNIT IV**

Oracle Fundamentals: Elements of SQL Language: Database Objects, Data Access SQL commands, DML commands - Oracle Queries - Basic Query, Using Expressions, Working with NULL values, Joining Multiple Tables in a Query, Selecting Distinct values, Using Subqueries, Unions and Multiple part Queries.

**UNIT V**

Table Creation: Create Table statement, Privileges required, Describing Table Definitions, Modifying Tables, Renaming a Table, Copying another table, Dropping a Table - Other Database Objects, Reason for Database Objects, Indexes - Embedded SQL: Languages supported by Oracle Precompiler, Embedded SQL statements.

**REFERENCE BOOKS:**

1. Naveen Prakash, Introduction to Data Base Management, 1994, Tata McGraw-Hill Pub. Co. Ltd.

2. David Mcclanahan, Oracle Developers's Guide, 1996, Oracle Press.

# Paper 3.6: Computer Lab IV (Visual Basic and Oracle Lab)

## VISUAL BASIC

1) Write and test a VB Program to Print twenty address labels in a two-column format for the address

  THE REGISTRAR
  ALAGAPPA UNIVESITY
  KARAIKUDI-630003.

2) Write and test a VB Program to read in Principal, Number of Years and Rate of Interest through INPUT Boxes, Compute and Print the Simple Interest and Compound Interest through labels.

3) Write and test a VB Program to compute the Surface area and volume of a sphere given the radius. Use Option buttons and INPUT Boxes.

  [Formula: A=4*3,14*R^2, V=4/3*3,14R^3]

12) Write and test a VB Program to compute and print either the SUM or the PRODUCT of the first N natural numbers. Use option button.

13) Write and test a VB Program to compute and print either the sum of odd numbers or even numbers at the user's choice using Label, Text and Option buttons.

14) Write a VB program to do temperature conversion C to F and F to C at user's choice using Label, Text and Enter Key.

15) Write and test a VB Program that allows the user choice among four arithmetic operations of addition, subtraction, multiplication and division with two given numbers.

16) Write and test a VB program to select candidates for four posts, based on their qualifications,

  MALE AND PG DEGREE    MANAGER
  MALE, GRADUATE & TYPING   CLERK
  FEMALE AND PG DEGREE  SECRETARY
  FEMALE, GRADUATE & TYPING  STENO

17) Write and test a VB program to display the Day of the given Date and Covert Upper Case from Lower Case to given Word.

18) Write a VB program to calculate Simple Interest or Compound Interest using three command buttons namely Input, Calculate, Display.

## *ORACLE*

  2.  Create table MARK with the following structure:

    Fieldname    Type   Width   Decimal

| | | |
|---|---|---|
| REGNO | Numeric | 8 |
| NAME | Character | 20 |
| TAMIL | Numeric | 3 |
| ENGLISH | Numeric | 3 |
| MATHS | Numeric | 3 |
| BIOLOGY | Numeric | 3 |

vii)     Add 5 Records.

viii)    Show data in fields REGNO, NAME, TAMIL & BIOLOGY alone on the screen.

ix)      Show data in fields REGNO, BIOLOGY & MATHS alone on the screen.

x)       Show data in fields NAME & REGNO alone on the screen.

xi)      Show all fields on the screen.

2) Create table ADDRESS with the following structure,

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| NAME | character | 20 | |
| STREET | Character | 20 | |
| CITY | Character | 20 | |
| PIN | Numeric | 6 | |

vi)      Add 5 Records.

vii)     Display the structure of the table.

viii)    Add the field DISTRICT

ix)      Fill all DISTRICT with MADURAI

x)       Change the PIN to 630003 where city is KARAIKUDI  and PIN is 623003.

3) Create table RESULT with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| REGNO | Numeric | 8 | |
| NAME | Character | 20 | |
| MARK1 | Numeric | 3 | |
| MARK2 | Numeric | 3 | |
| MARK3 | Numeric | 3 | |
| TOTAL | Numeric | 3 | |
| RESULT | Character | 4 | |

iv)      Add 5 records (Fill all Fields except Total & Result fields),

v)       Fill TOTAL field with the sum of  MARK1, MARK2, and MARK3.

vi)      fill the RESULT field with 'PASS' if TOTAL >= 150 otherwise 'FAIL'

4) Create table PAY with the following structure,

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| EMPNO | Numeric | 8 | |
| NAME | Character | 25 | |
| DOJ | Date | | |
| BPAY | Numeric | 8 | 2 |
| DA | Numeric | 8 | 2 |
| HRA | Numeric | 3 | |
| DEDU | Numeric | 3 | |
| GPAY | Numeric | 8 | 2 |
| NPAY | Numeric | 8 | 2 |

    viii)    Add 5 Records, (Fill al fields except DA, HRA, DEDU, GPAY and NPAY)
    ix)    Fill DA with 75% of BAY for all employees.
    x)    Fill HRA with 300 for all employees.
    xi)    Fill DEDU with 750 for all employees.
    xii)    Fill GPAY with the sum of BPAY, DA and HRA.
    xiii)    Fill NPAY with GPAY – DEDU.
    xiv)    Display EMPNO, NAME, BAPY, DEDU, GPAY, NPAY alone.

5) Create table BIODATA with following structure,

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| NAME | Character | 25 | |
| AGE | Numeric | 2 | |
| SEX | Character | 1 | |
| DEGREE | Character | 8 | |
| CITY | Character | 20 | |

    vi)    Add 5 records, (BIODATA of 5 employees)
    vii)    Display all records of MALE employees.
    viii)    Delete all BSC degree holders and then display the table contents.
    ix)    Remove all employee records whose AGE is greater than 20.
    x)    Display all records having AGE < 20 and CITY is TRICHY.

6) Create table LABEL with the following structure.

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| NAME | Character | 20 | |
| STREET | Character | 20 | |
| CITY | Character | 20 | |

|          | PIN       | Numeric | 6       |
| :------- | :-------- | :------ | :------ |

vi)      Add 5 Records.

vii)      Display the contents of the table.

viii)      Display the Ascending order sorted list with NAME as primary key.

ix)      Display the Descending order sorted list with CITY as primary key.

x)      Display the contents with appropriate HEADINGS.

7) Create table PERSONAL with the following structure.

| Fieldname | Type      | Width | Decimal |
| :-------- | :-------- | :---- | :------ |
| SNO       | Numeric   | 8     |         |
| NAME      | Character | 20    |         |
| CITY      | Character | 20    |         |
| PIN       | Numeric   | 6     |         |
| PHONE     | Numeric   | 6     |         |

viii)      Add 5 Records.

ix)      Display the contents of the table.

x)      Display all names.

xi)      Display all names without duplicate.

xii)      Display all names in uppercase, lowercase and Initial Capital letters.

xiii)      Display all names and length of names.

xiv)      Display name, city in which only beginning portion of name is known.

8) Create table MARKS with the following structure.

| Fieldname | Type      | Width | Decimal |
| :-------- | :-------- | :---- | :------ |
| REGNO     | Numeric   | 8     |         |
| NAME      | Character | 20    |         |
| MARK1     | Numeric   | 3     |         |
| MARK2     | Numeric   | 3     |         |
| MARK3     | Numeric   | 3     |         |
| TOTAL     | Numeric   | 3     |         |
| AVG       | Numeric   | 6     |         |
| GRADE     | Character | 1     |         |

viii)      Add 5 Records.

ix)      Replace all TOTAL with MARK1+MARK2+MARK3 and display the contents.

x)      Replace all AVG with TOTAL/3 and display the contents.

xi)      Replace GRADE with the following conditions:

         GRADE is A if AVG is greater than or equal to 60

         GRADE is B if AVG is 40 to 59.

         GRADE is C if AVG is less than 40.

xii)    Display the Maximum marks in each subject.
xiii)   Display the Minimum marks in each subject.
xiv)    Count the number of records for mark1 >50.


9) Create table SALES with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| SALENO | Numeric | 5 | |
| SALENAME | Character | 20 | |
| SALEAMT | Numeric | 8 | 2 |
| COMM | Numeric | 6 | 2 |
| SALEDATE | Date | | |

vii)    Add 5 Records.
viii)   Replace COMM with the following conditions:
        If Sales amount is less than 1000 there is no commission.
        If Sales amount is greater than or equal to 1000 but less than or equal to 5000, commission is 5% of sales amount.
        If Sales amount is greater that 5000, commission is 10%.
ix)     Display all the records.
x)      Display the records having commission < 1000.
xi)     Display the records having commission > 1000.
xii)    Display the Average sales and Average commission.


10) Create table BLOOD with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| DNO | Numeric | 3 | |
| DNAME | Character | 20 | |
| DOB | Date | | |
| DAGE | Numeric | 2 | |
| DADD1 | Character | 15 | |
| DADD2 | Character | 15 | |
| DCITY | Character | 15 | |
| DPIN | Numeric | 6 | |
| DBLOOD | Character | 3 | |
| DSEX | Character | 1 | |

vii)    Add 5 Records.

viii)   Display all the  records.

ix)     Display the information of donors in the age group 20 to 25 using BETWEEN option.

x)      Display the information of donors having date of birth BETWEEN 01-JAN-55 and 31-DEC-75.

xi)     Display the information of donors having any of the blood group from the set of blood groups using IN option.

xii)    Display the information of female donors with age between 20 and 25 using BETWEEN option.

19) Create table NUMB with the following structure.

| Fieldname | Type | Width | Decimal |
|-----------|---------|-------|---------|
| NUM | Numeric | 6 | 2 |
| ABSNO | Numeric | 6 | 2 |
| SQRTNO | Numeric | 6 | 2 |
| ROUNDNO | Numeric | 6 | 2 |
| TRUNCNO | Numeric | 6 | 2 |
| SQRNO | Numeric | 6 | 2 |
| CUBENO | Numeric | 6 | 2 |

x)      Add 5 Records. (Some numbers must be negative or decimal)

xi)     Display all the  records.

xii)    Replace ABSNO with absolute value of given numbers.

xiii)   Replace SQRTNO with square root value of given numbers.

xiv)    Replace ROUNDNO by using ROUND function.

xv)     Replace TRUNCNO by using TRUNC function.

xvi)    Replace SQRNO with square of given numbers.

xvii)   Replace CUBNO with cube of given numbers.

xviii)  Display all the records.

## Paper 3.7: Computer Lab V (Java Programming Lab)

1. Write a Java Program for Sorting a given list of names in ascending order using command line arguments.
2. Write a Java Program to multiply two given matrices.
3. Programs Illustrating Overloading & Overriding methods in Java.
4. Programs Illustrating the Implementation of Various forms of Inheritance. (Ex. Single, Hierarchical, Multilevel inheritance….)
5. Program which illustrates the implementation of multiple Inheritance using interfaces in Java.
6. Program illustrates the implementation of abstract class.
7. Programs to create packages in Java.
8. Program to Create Multiple Threads in Java.
9. Program to Implement Producer/Consumer problem using synchronization.
10. Program to Write Applets to draw the various polygons.
11. Create and Manipulate Labels, Lists, Text Fields, Text Areas & Panels
12. Handling Mouse Events & Keyboard Events.
13. Using Layout Managers.
14. Create & Manipulate the Following Text Areas, Canvas, Scroll bars, Frames, Menus, Dialog Boxes.
15. Program to count number of words & Characters in a text.
16. Programs which illustrates the use of files & Streams.
17. Program that reads on file name from the user and displays the contents of file.
18. Java Program that displays the no. of characters, lines & words in a text file.
19. Program to display the contents of file along with a line number before each line.
20. Program to read & write the data using Random Access File.

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**Course** :B.Sc.(Information Technology) [2007-08 onwards]
Duration : 3 years
Medium : English
Eligibility : A pass in HSC (or) 3 Yr. Diploma
Lateral Entry II yr : 3 yr. Diploma in Computer Engineering / Information
Technology/ EEE/ ECE

### Course of Study and Scheme of Examinations

| Code No. | Name of the Course | Max. Mark |
|---|---|---|
| | **I Year** | |
| 1.1 | Part I: Paper I: Tamil/Hindi/Communication Skills | 100 |
| 1.2 | Part II: Paper I: English | 100 |
| 1.3 | Digital Computer Fundamentals | 100 |
| 1.4 | C and Data Structures using C | 100 |
| 1.5 | Discrete Mathematics | 100 |
| 1.6 | Computer Lab I (C and Data Structures Lab) | 100 |
| | **II Year** | |
| 2.1 | Part I: Paper II: Tamil/Hindi/Human Skill Development | 100 |
| 2.2 | Part II: Paper II: English | 100 |
| 2.3 | Internet Programming | 100 |
| 2.4 | Analysis and Design of Information Systems | 100 |
| 2.5 | Application Programs | 100 |
| 2.6 | Computer Lab II (Java Programming Lab) | 100 |
| 2.7 | Computer Lab III (Application Programs Lab) | 100 |
| | **III Year** | |
| 3.1 | Computer Networks | 100 |
| 3.2 | Visual Programming | 100 |
| 3.3 | Principles of Information Technology | 100 |
| 3.4 | Mobile Computing | 100 |
| 3.5 | RDBMS | 100 |
| 3.6 | Computer Lab – IV (Visual Basic and Oracle Lab) | 100 |
| 3.7 | Computer Lab V (Networking Lab) | 100 |

## Paper 1.3: DIGITAL COMPUTER FUNDAMENTALS

**UNIT I**

Number Systems Machine Codes: Binary, Octal, Decimal and Hexadecimal number systems - Conversion from one base to another base - Use of complements - Binary arithmetic - Number codes and Character codes.

**UNIT II**

Boolean Algebra and Combinational Circuits: Fundamental concepts of Boolean Algebra - De Morgan's theorems - Simplification of expressions - Sum of products and products of sums - Karnaugh map simplification - Quine-McKluskey method - Two level implementation of Combinatorial Circuits - Encoder - Decoder - Multiplexer - Demultiplexer.

**UNIT III**

The Arithmetic Logic Unit: Construction of ALU - Integer representation - Half Adder - Full Adder - Parallel Binary Adder - Positive and negative numbers - Addition and subtraction in a parallel arithmetic element.

**UNIT IV**

Sequential Circuits (Elementary qualitative treatment only) Flip-Flops - Clocks - Gated Flip-Flops - Master Slave Flip-Flops - Shift Registers - Binary Counters - BCD Counters.

**UNIT V**

Computer Basics - Data Representation - Input-Output Units - Computer Memory – Processor - Computer Generations and Classification.


**REFERENCE BOOKS :**

9. M.Morris Mano, Digital Logic and Computer Design, Prentice-Hall of India, 1979.
10. V.Rajaraman, Fundamentals Of Computers, 3rd edition, Prentice Hall, 1999.
11. Thomas C. Bartee, Digital Computer Fundamentals, Ed6, McGraw Hill ISE (1985).
12. Albert Paul Malvino, Digital Computer Electronics, Tata McGraw Hill (1986).
13. Gear, C.W, Computer Organization and Programming, McGraw-Hill, (1975).

## Paper 1.4: DATA STRUCTURES USING C

**UNIT I**

Introduction to C - Character set - Identifiers and keywords - Data types - Constants - Variables declarations - operators and Expressions - Input and Output - Entering input data - Writing output data - The gets and puts functions - Branching and Looping - Nested control structures - Switch - Break -Continue - goto.

**UNIT II**

Function - Accessing a Function - Passing arguments to a function - Recursion - Library function - Macros -The C preprocessor - Defining and processing an Array - Passing an array to functions - Multi dimensional array - arrays and String.

**UNIT III**

Pointers - Passing pointers to function - Dynamic memory allocation - Arrays of pointers - Passing functions to other functions - Defining structure - Processing structure - opening and closing a data file - creating a data file - processing a data file.

**UNIT IV**

Introduction to Data structures - Information and meaning - Stack structure - Definition - operations - Queue structure - representation - operations.

**UNIT V**

Linked list - Definition - representation - operation - Singly linked list - Doubly linked list - Trees - Binary trees - Binary tree representation - Representing list as Binary Trees - Trees and their Applications.

**REFERENCE BOOKS :**
3. Byron Gottfried, Programming with C, 1996, McGraw Hill International Edition,
4. Yedidyah Langsam, Moshe J.Augenstein,Aaron M.Tenenbaum, Data Structures Using C, 1990, Prentice-Hall, Second Edition.

# Paper 1.5: DISCRETE MATHEMATICS

**UNIT I**

Mathematical Logic: Statements and Notation - connectives -normal forms - The theory of inference for the statement calculus - The predicate calculus - Inference theory and predicate calculus.

**UNIT II**

Set theory: Sets - Basic concepts - notation - inclusion and equality of sets - the power set - relations and ordering - properties - relation matrix and graph of a relation - partition - equivalence and compatibility relations - composition – partial ordering - partially ordered set.

**UNIT III**

Functions - definition - composition - inverse - binary and n-ary operations - characteristic function - hashing function.

**UNIT IV**

Algebraic Structures: Algebraic Systems: Examples and General Properties - Semigroups and Monoids: Definitions and Examples - Homomorphism of Semigroups and Monoids - Subsemigroups and Submonoids

**UNIT V**

Groups: Definitions and Examples - Cosets and Lagrange's Theorem - Normal Subgroups - Algebraic Systems with two Binary Operations.

**REFERENCE BOOKS:**
3. Venkatraman M K, Sridharan N and Chandrasekaran N, Discrete Mathematics, The National Publishing Company, 2000.
4. J.P. Tremblay and R. Manohar Discrete mathematical structures with applications to Computer Science Mc.Graw Hill Book Company, New York, 1975.

## Paper 1.6 – Computer Lab I  (C and Data Structures Lab)

1. Write a C program to find the Area of a circle.

2. Write a C program to add two numbers.

3. Write a C program to calculate Simple Interest.

4. Write a C program to find square root, square and cube of any number.

5. Write a C program to calculate Compound Interest.

6. Write a C program to input a temperature in Celsius and find the corresponding temperature in Fahrenheit. Use the formula $f = 9 / 5 * C + 32$.

7. Write a C program to convert a given number into words for numbers 1 to 5. Ex. 1 to ONE,  2 to TWO and 5 to FIVE.

8. Write a C program to input a basic pay and calculate Gross pay and Net pay

    INCOME:

    |       |          |                     |
    |-------|----------|---------------------|
    | i.    | HRA      | = 15% OF BASICPAY   |
    | ii.   | DA       | = 90% OF BASICPAY   |
    | iii.  | GROSSPAY | = BASICPAY + DA + HRA |

    DEDUCTIONS :

    |       |            |                     |
    |-------|------------|---------------------|
    | iv.   | PF         | = 10% OF BASICPAY   |
    | v.    | WCHARGE    | = 200               |
    | vi.   | DEDUCTIONS | = PF + WCHARGE      |

    NET PAY = GROSS PAY – DEDUCTIONS

9. Write a C program to compute commission earned by a salesman according to the scheme given below:

    | SALES AMOUNT           | COMMISSION % |
    |------------------------|--------------|
    | Upto Rs. 1000          | 0            |
    | Above 1000 upto 5000   | 5            |
    | Above 5000             | 10           |

10. There are 10 students in an class. Their names and marks in three different subjects are given. If a student takes more than 40 marks in each subject, then he is declared 'PASS'. Otherwise 'FAIL'.  Write a C program to do the above.

11. Write a C program that receives the data such as age and name of person to check the eligibility for voting. Take the condition that if a person is more than 18 years old he is eligible to vote. Else display the number of years, he has to wait for voting.

12. A man is paid at the hourly rate of Rs. 15/- per hour for the first 45 hours worked. Thereafter, overtime is paid at 1.5 times the hourly rate for the next 25 hours and 2 times the hourly rate for further hours worked per week, calculate and Print his gross weekly wage.

13. Write a C program to find the Biggest of 5 Nos. Modify the program to find the biggest of 10 Nos.

14. Write a C program to sort 10 numbers. in ascending order.

15. Write a C program to concatenate two given strings and find the length of the concatenated string.

16. Write a C program to find the factorial of a given number using FUNCTION declaration.

17. Write a C program to find Simple & Compound interests using FUNCTION declaration.

18. Write a C program to implement push and pop operations on stack.

19. Write a C program to evaluate the given mathematical expression using stack.

20. rite a c program to implement insert and delete operations on Linked List structure.

21. Write a C program to implement insert and delete operations on Queue using array concept.

22. Write a C program for linked list implementation of Queue operations.

23. Write a C program to sort 10 Nos. in Ascending order with naming of variable and the value before and after sorting.

24. Define Selection sort write a C program to sort a set of elements using selection sort.

25. Write a C program to sort a set of elements using Insertion sort.

26. Write a menu driven program in C to find an element using Linear and binary search methods.

## Paper 2.3: INTERNET PROGRAMMING

**UNIT-I**

Introduction to Networks - Network Topologies - Structure, Architecture, Design Issues, layers - Client Server Model.  Protocols : TCP/IP - Importance, Terminology, Framework, protocol Stack - IP : Network layer - Internet address protocols - IP diagram, Header, Fragmentation, routing. TCP : Transport layer, ports - IP ports - TCP-Ports usage - TCP application layer.

**UNIT-II**

Domain Name System - Name Server Concepts - Resolver - Finger user information protocol - Internet E-mail - Mail Transfer Protocol - File Transer Protocols - Managing Data - Telenet - HTTP - HTTP client Requests - URI - URLs - HTTP methods - Programming the WEB - Creating Web Server.

**UNIT-III**

Internet at Home - Entertainment on the Internet - Television and the Net, Movies and Music - At Office : Electronic Commerce - Shopping on the internet, Doing Business, Finding Job - At School : Internet Resources for K-12 Teachers, Self Education - Learning about science, Technology and the Internet Itself

**UNIT-IV**

Basics of Java - Object oriented programming - Principles - JAVA data types: Simple, Floating point, Character, Boolean - Variable Declaration - Dynamic Initialization - Type conversion and Casting - Arrays -  One-dimensional and multidimensional.  Operators and statements.

**UNIT-V**

Java Classes and Objects - Fundamentals - Object Reference variables - Introducing methods - Constructors - Overloading methods - Inheritance - I/O applets : I/O basics and applet fundamentals - String Handling: Constructor, length, operations, character extraction, comparison, searching and modifying.

**REFERENCE BOOKS:**

1   Kris Jamsa and Ken Cope, Internet Programming, Galgotia Publications Pvt. Ltd. (1995)

2   Neil Randall, Teach Yourself The Internet in a week, Second Edition, PHI Pvt. Ltd. (1996)

3   Patrick Naughton and Herbert Schildt, Java - The Complete Reference, Tata McGraw Hill Publishing Company Ltd.

## Paper 2.4: ANALYSIS AND DESIGN OF INFORMATION SYSTEMS

**UNIT I**

System Concepts and System Development Life Cycle: System Concepts - Characteristics - Elements of a system - Types of Systems: Abstract, Physical, Open, Closed and Man-made Information system - Computer Based Information Systems: MIS, DSS, TPS and OAS - System Development Life Cycle - Problem Definition - Feasibility Study - Analysis - Design - Development - Implementation - Post Implementation and Maintenance - System Analyst : Interpersonal Skills - Technical Skill - Communication Skills - Role of Systems Analyst.

**UNIT II**

System Analysis : Bases for planning in System Analysis - Preliminary Investigation - Determining the User's information requirements, Case Scenario, Problem Definition and Project Initiation, Background Analysis - Fact Finding Techniques : Interview - Questionnaire - Record Review - Observation. Systems Analysis: Analysing Systems data - Feasibility Study: Technical, Economical and Operational - Steps in Feasibility Analysis, Feasibility Report, Oral Presentation - Systems Costs & Benefits: Categories of Cost - Benefits - Cost Benefit Analysis: Break Even, Present Value, Pay Back and Cash Flow. Analysis Tools : Data flow concept - Data Flow Diagram - Data Dictionary - Decision Table - Decision Tree - Structured English.

**UNIT III**

System Design : Process and stages of System Design : Logical and Physical Design. Design Methodologies: Structured design - Form Driven Methodology - Major Development Activities - Input Output and Form Design: Input Design : Capturing Data for input - Input Validation - Input Design of on-line systems. Output Design - Printed, Display and Audio. Forms Design : Definition - Classification of Forms, Requirements of Forms Design - Types of Forms - Forms Control.

**UNIT IV**

File and Database Design: File concepts - Types of Files - Methods of File Organization - Sequential - Direct - Indexed - Database Design: Database concept - Types of Databases : Hierarchical, Network and Relational. System Development: Software Design - Top Down Approach - Flow Chart: System Flow Chart - Program Flow Chart - HIPO - IPO - VTOC - Warnier Orr Diagram - Structured Walkthrough - Quality Assurance - Levels of Assurance - System Testing - Special Systems Tests.

**UNIT V**

System Evaluation Implementation and Maintenance: Training Personnel - Training Methods - Conversion: Conversion Methods - Parallel, Direct, Pilot and Phase-in. Conversion Plan - Site Preparation - Data and File Preparation - Post Implementation Review - System Maintenance : Corrective - Adaptive - Hardware and Software Selection : Computer Industry - Software Industry - Procedure of Hardware and Software Selection: Major phases in Hardware and Software selection - Evaluation Process - Financial considerations.

**REFERENCE BOOKS:**
1. Elias M.Awad, Systems Analysis and Design, 1990, Galgotia Publication Pvt. Ltd.
2. James A. Sen, Analysis and Design of Information System, 1985, McGraw Hill.

# Paper 2.5: APPLICATION PROGRAMS

**UNIT I**

Windows: Working with windows elements –Windows Desktop – View Drives with My Computer - Managing files with Windows Explorer – Working with multiple windows – Office Shortcut Bar – Start and Exit Office application – Menu Commands – Toolbars – Dialog boxes – Getting help in MS-Office – Creating, Opening, Saving Files.

**UNIT II**

MS-Word – Creating a New Word Document – Typing, Edit, Delete Text – Editing Keys – Select Text – Moving around the Document – Moving and Copying Text – Find and Replace Text – Insert Date or Time – Spell Checking – Getting often-used phrases – Table handling – Printing mailing labels – Formatting – Make Text Bold, Italic Underline – Changing Font and Size – Change default font – Copy formatting – Align Text – Indent Text – Create bullet and numbered list – Set Tabs – Using Ruler – Change margins – Change Line, paragraph spacing – Page numbering – Headers and Footers – Set up Columns – Templates and Wizards – Printing a document – Print preview – Page Orientation - Zoom in and Zoom out pages – Mailmerge – Creating form letters – Merging a form letter with data.

**UNIT III**

MS-EXCEL – Working with worksheets – Entering Text, Numbers, Date or Time – Formula Bar – Fill in Data – Autocomplete – Entering formulas - Absolute addresses in formulas - Working with Ranges – Functions – Editing, Deleting entries – Move and Copy data – Find and Replace Data – Insert and delete Rows and Columns – Resize Columns and Rows - Formatting – Bold, Italic, Underline, Font, Size Changes – Conditional Formatting – Change alignment – Number formatting – Borders – Headers and Footers – Creating a Chart – Working with Chart object – Change chart data, chart type – Formatting chart series – Database – Building an Excel Database – Add, Edit, Delete Records – Search database – Sort Excel database.

**UNIT IV**

MS-POWER POINT – Create and edit Power Point presentation – Editing Text – Add or Delete a Slide – Moving from slide to slide – Change views – Create graph chart, organization chart – Format and run a presentation – Text formatting and alignment – Drawing on slides – Color Scheme – Background – Using Design Template – Auto layout – Adding speaker notes – View Slide Show – Handouts.

**UNIT V**

MS-ACCESS & Sharing Office Data:- Creating a New Database - Creating and saving a table - Primary Key creation - Adding, Editing and Deleting fields - Changing the view and Moving fields - Data Entry and Editing - Adding, Inserting and Deleting Records - Adjusting Column Widths - Hiding Columns - Finding Records - Sorting Records - Creating, Saving and Editing a Query - Forms - Autoform - Using Report Wizard - Creating and Printing Reports - Sharing Office Data – Copy and Paste using Clipboard – Insert Copied data as a link – Embed copied data in another document – Combine Excel data and charts with Word Documents – Inserting Graphics - Group related documents with Binder.

**REFERENCE BOOKS:**

3.  Jennifer fulton, Sherri Kinkoph, and Joe Kraynak, The Big Basics Book of Microsoft Office *1997*, PHI, 1998.
4.  Laura Acklen et al, Microsoft Office 97 Professional Essentials,EEE Que E&T, PHI (1998)

## Paper 2.6 Computer Lab II (Java Programming Lab)

1. Write a Java Program for Sorting a given list of names in ascending order using command line arguments.
2. Write a Java Program to multiply two given matrices.
3. Programs Illustrating Overloading & Overriding methods in Java.
4. Programs Illustrating the Implementation of Various forms of Inheritance. (Ex. Single, Hierarchical, Multilevel inheritance….)
5. Program which illustrates the implementation of multiple Inheritance using interfaces in Java.
6. Program illustrates the implementation of abstract class.
7. Programs to create packages in Java.
8. Program to Create Multiple Threads in Java.
9. Program to Implement Producer/Consumer problem using synchronization.
10. Program to Write Applets to draw the various polygons.
11. Create and Manipulate Labels, Lists, Text Fields, Text Areas & Panels
12. Handling Mouse Events & Keyboard Events.
13. Using Layout Managers.
14. Create & Manipulate the Following Text Areas, Canvas, Scroll bars, Frames, Menus, Dialog Boxes.
15. Program to count number of words & Characters in a text.
16. Programs which illustrates the use of files & Streams.
17. Program that reads on file name from the user and displays the contents of file.
18. Java Program that displays the no. of characters, lines & words in a text file.
19. Program to display the contents of file along with a line number before each line.
20. Program to read & write the data using Random Access File.

# Paper 2.7 Computer Lab III (Application Programs Lab)

## MS-WORD

1. Prepare your resume with your photograph inserted. Use Table, bullets and different color features.

2. Prepare the First page of M.C.A. PRACTICAL RECORD NOTE book with picture insertion and alignment.

3. Prepare a news report using two columns, insert a picture in the first column and make the text flow around it.

4. Type lecture notes and provide audio explanation with the help of sound files.

5. Prepare an invitation for a function to be conducted in your institution. Use different text orientation and pictures to make it attractive.

6. Create a table of student data that contains REGNO, NAME, ENGLISH, TAMIL, and MATHS marks. Add a new column named TOTAL and find the row total for each student.

   Add two rows named TOTAL, AVERAGE. Find the total and average values for each subject mark. Convert the table to text.

7. Create a form letter that informs the customer about the date of maturity of a deposit amount in a commercial bank and request the customer for renewal. Mailmerge it with an Access Database containing all the customer data. Prepare letters for customers whose due date falls in a specific range of dates.

## MS-EXCEL

1. Create the following Inventory Worksheet in MS-EXCEL :

| ITEMNO | NAME | PRICE | QUANTITY | STOCK ON HAND | REORDER LEVEL | PURCHASED | ISSUED |
|--------|------|-------|----------|---------------|---------------|-----------|--------|
| 101 | BOLTS | 2.00 | 1000 | 500 | 300 | 800 | 200 |

   i) Enter all the data items except QUANTITY ON HAND for 10 items.
   ii) Find QUANTITY ON HAND using the formula

   STOCK QUANTITY = QUANTITY ON HAND + QUANTITY PURCHASED – QUANTITY ISSUED

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Find total stock value in inventory as a product of total quantity hand and total price($\sum$ quantity on hand * $\sum$ price).  Display all the items in red color whose quantity on hand is below reorder level.

2.  Create  the following worksheet  in  EXCEL  for Electricity Bill

| CONSUMER NO. | TYPE | NAME | PMR | CMR | UNITS | BILL |
|---|---|---|---|---|---|---|
| 101 | D | RAM | 545 | 645 | | |

   i) Add data for 10 consumers with type 'D' for domestic user and  type 'I' for Industrial user.

   ii) Find UNITS column for each customer and calculate bill using the slab given below:

### TYPE **D** CONSUMER

| UNITS CONSUMED | RATE/UNIT Rs. |
|---|---|
| FIRST 100 | 0.80 |
| NEXT 200 | 1.25 |
| REMAINING | 2.00 |

### TYPE **I** CONSUMER

| UNITS CONSUMED | RATE/UNIT Rs. |
|---|---|
| FIRST 100 | 1.10 |
| NEXT 900 | 2.40 |
| REMAINING | 3.50 |

   iii) All the consumers should be charged a minimum bill of Rs. 20/- even if their bill amount is below Rs. 20/-

3.  Create a Worksheet in Ms-Excel with following columns:
    Employee number, Employee Name, designation, Basic pay, Hra, Da, Lic, Pf, Grosspay, Netpay.
  i) Type data for empno,empname,designation,Basicpay and Lic,Pf
 ii) Calculate   Hra      = 20% of Basic
                 Da       = 30% of Basic
              Grosspay = Basic +Hra + Da
              Netpay    = Grosspay -(Lic +pf)

 iii) Draw the bar chart between emp name and  Netpay

iv) Sort the designation column and employee column name at a time.

4. Create a Worksheet with the following columns.

      Salesman number, Salesman Name, City, Product Name, Sale Amount.

  Add three records for 5 different salesmen who have carried out sales of different products in different cities.  Find the following:

         i) Citywise Total Sales

         ii) Salesmanwise total sales

         iii) Productwise total sales iv) Grand Total sales.

5. Create Internal Marks assessment worksheet with the following columns:

    REGNO, NAME, SEX, TEST1, TEST2, TEST3, TEST AVERAGE,
    ATTENDED DAYS, ATTENDANCE % , BONU MARK, INTERNAL MARK

i)   Add data for 20 students (Test marks are out of 30)

ii)  Compute TEST AVERAGE as average mark of best two out of three tests.

iii) Maximum number of working days is 50. Each student should secure atleast 80% attendance.

iv) Provide 1 bonus mark for each 1% attendance above eligibility limit 80%

v)  Compute Internal mark as TEST AVERAGE+Bonus Mark

vi) Sort the data in alphabetical order of name.

vii) Filter data for male and female students alone, who have attendance % below 80.

6.  The  following  were  the  observations  made  in  certain experiments for the values y and given the values of x.

$$X : 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad 10$$

$$Y : 10 \quad 30 \quad 45 \quad 25 \quad 15 \quad 28 \quad 40 \quad 32 \quad 15 \quad 35$$

Compute the Following:

  v)    Find Mean,Median and Standard deviation

  vi)   Correlation coefficient between x and y.

  vii)  Draw the Bar Chart and Shading cells.

  viii) Draw a Chart in Excel and Paste it an Word.

7. Create two worksheets containing day to day house hold expenses for the months
  January and February 2005, with the following columns:

    ITEM        AMOUNT
    Stationery      25.00

v) Add 10 different items as shown above, for two months in two different worksheets.
vi) Consolidate both the months data and find the total expenses on each item.
vii) Find the Total expenses for two months.
viii) Find the maximum and minimum expense amount.

8. Create a data table to create a ready reckoner table for a commercial bank that contains simple interest for Rs. 1,000/- with varying period and interest rates.  Create the table as shown below:

READY RECKONER TABLE FOR INTEREST CALCULATION PER 1000

| PERIOD | INTEREST RATE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | 11% |
| 1 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |

9. Draw Line, Bar, PIE charts for the data given below:

ABC COMPANY LIMITED

| YEAR | SALES | COST | PROFIT |
|---|---|---|---|
| 1991 | 1000 | 400 | 600 |

Add data for 10 years from 1991 to 2000.  Provide titles, legends, grids and data labels.
**MS-ACCESS**

**Instructions: Open a New database and add tables**

1) Create employee table with the fields EMPNO, NAME, AGE, SEX, STREET, CITY, PIN, SALARY.

v) Add data for 20 employees
vi) Write a query to display all the male employees whose salary is between 1000 and 5000 and living in city "CHENNAI".

      vii)    Write a query to display all the female employees whose ages are in the range 50-60
     viii)    Show all the records in the table for the city "TRICHY" by filtering.

2) Create STUDENT table with the following fields REGNO,NAME, MARK1, MARK2, MARK3.  Create ADDRESS table with fields REGNO,STREET, CITY and PIN.

      iii)    Write a query to display REGNO,NAME and total of all the three subject marks.
      iv)    Write a query to display REGNO,NAME, STREET, CITY, PIN and total of all the three subject marks.

3) Create Inventory table with fields ITEMNO,NAME,QUANTITY ON HAND, REORDER LEVEL.
     i) Create a form in custom format.
     ii)  Create a query REORDER to show all the items
     iii) Create a macro that executes REORDER query automatically.

4)  Create STUDENT table with fields REGNO,I1,E1,I2,E2,I3,E3,I4,E4,I5,E5(internal and external marks in five subjects) and table SUBJECT with fields SCODE1, SNAME1,SCODE2,SNAME2,SCODE3,SNAME3,SCODE4,SNAME4,SCODE5,    SNAME5 (Subject Code and Subject Names for Five subjects). Create a report to print marksheets for all the student in the following format.

**ALAGAPPA UNIVERSITY, KARAIKUDI**
**STATEMENT OF MARKS**

**REGNO:05315001**                                        **NAME : RAMANA S**

| SUBCODE | SUBJECT NAME | INTERNAL | EXTERNAL | TOTAL | RESULT |
|---|---|---|---|---|---|
| 101 | SYSTEMS ANALYSIS | 20 | 40 | 60 | PASS |
| 102 | DBMS | 22 | 50 | 72 | PASS |
| 103 | VISUAL PROGRAMING | 20 | 38 | 58 | PASS |
| 104 | INTERNET PROGRAMMING | 21 | 27 | 48 | FAIL |
| 105 | COMPILER DESIGN | 28 | 30 | 58 | PASS |
|  |  |  | TOTAL | 248 |  |

      iv)    Condition for passing a subject : A minimum of 35 marks in external and 50 marks in total.
      v)    Grand total should not include total in failed subjects.
      vi)    Display FAIL in red color.

5) Create two tables SALES1,SALES2 and join them to produce a Third table SALES3.

## Paper 3.1: COMPUTER NETWORKS

**UNIT I**

Introduction: Uses of Computer Networks - Network Hardware and Network Software - Reference Models - Example Networks - Network Standardisation. Physical Layer: Transmission Media - Telephone System - ISDN - Broadband and Narrowband ISDN - ISDN and ATM - Communication Satellites.

**UNIT II**

Data Link Layer: Design Issues - Error Detection and Correcting Codes - Elementary Datalink Protocols - Sliding Window Protocols - Protocol Specification and Verification: Finite State Models - Petri Net Models - Example Dlink Protocols: HDLC - SLIP - PPP - Media Access Sublayer: Multiple Access Protocols - ALOHA - Carrier Sense Multiple Access Protocols - Collision Free Protocols.

**UNIT III**

Network Layer: Design Issues - Routing Algorithms - Congestion Control Algorithms - Internetworking: Tunneling - Fragmentation - Firewalls - Network Layer in the Internet - IP - Subnets - Internet Control Protocols: Address Resolution Protocol - ICMP - RARP - Internet Multicasting - Network Layer in ATM Networks: Cell Format - Connection Setup - Routing and Switching - Services Categories - ATM LANs.

**UNIT IV**

Transport Layer: Transport Service - Elements of Transport Protocols: Addressing - Flow Control and Buffering - Multiplexing - Crash Recovery - Performance Issues - Measuring Network Performance - Internet Transport Protocols - TCP - UDP - Protocols for Gigabit Networks.

**UNIT V**

Application Layer: Network Security - Cryptography - Secret and Public Key Algorithms - DNS - SNMP - Electronic Mail - Electronic Mail Privacy - World Wide Web: Client Side - Server Side - Multimedia - Audio - Video - Data Compression - JPEG, MPEG Standards.

**REFERENCE BOOKS:**
1. Andrew S. Tanenbaum, Computer Networks, 4th Edition, 2003, Prentice Hall of India.
2. Uless Black, Computer Networks, Prentice Hall.

# Paper 3.2:  VISUAL PROGRAMMING

**UNIT-I**

Introduction to Windows - Windows Graphic User Interface (GUI) - Getting Started with Windows - Required Hardware and Software - Format of a Window - Icons - Selecting, Moving, Sizing Windows - Menus - Help.

**UNIT-II**

Program, File & Print Managers - Running Applications - Mutitasking - Clipboard - Control Panel - Print Manager - Write - Text formatting -  Paintbrush - Picture Attributes - Drawing Tools - Windows Power User - Operating Modes - PIF Editor - OLE - Multimedia Windows.

**UNIT-III**

Visual Basic Concepts - Event-Driven Programming - Terminology - Working Screen - Controls and Events - Menu System - Programming Language - Tools: MsgBox, InputBox, Scroll Bars, Frames, CheckBox, Menus.

**UNIT-IV**

Program Design - Form and Controls - Writing the Code - Saving, Running and Testing - Making EXE File - Printouts - Program Flow: Logical Testing - Branching with IF, CASE, FOR..NEXT, DO Loops, WHILE..WEND.

**UNIT-V**

Procedures, Functions, Forms and Arrays - Creating Procedures, functions - Recursive Functions- Multiple Forms - Startup Forms - SubMain Procedure -  Arrays and Loops - Control Arrays - Indexing and Event Handling - Graphics - MDI forms.


**REFERENCE BOOKS:**

5.   AL Stevens, Teach Yourself Windows 3.1, 1994, BPB Publications.

6.   P.K. McBride, Programming In Visual Basic, 1995, BPB Publications.

## Paper 3.3: PRINCIPLES OF INFORMATION TECHNOLOGY

*UNIT-I*

An Overview of the Revolution in Computers and Communications: From the analog to the digital age : The " New Story" of computers and communications - The six Elements of a Computer & Communications System - Communications: Development in Computer Technology, Developments in Communications Technology - Computer and Communications Technology Combined: Connectivity and Interactivity - The Ethics of Information Technology.

*UNIT-II*

Application Software:  Kinds of Software - The five types of applications software - Word processing - Spreadsheets - Database software - Presentation graphics software - Communications software - Desktop accessories and personal information managers - integrated software and suites - Groupware - Internet Web browsers - Specialised software - Ethics and Intellectual property rights.

*UNIT-III*

Communications: The practical uses of communications and connectivity - Telephone related communications services - Video/voice communication: Video conferencing and picture phones - online information services - The Internet - Shared resources : Workgroup computing, Electronic Data Interchange, and Intranets -  Telecomputing  and virtual offices - Using computer to communicate: Analog and Digital Signals - modems and communication Software, ISDN lines, and Cable Modems - Communications Channels: Communications Networks - Local Networks - Factors affecting Data transmission - Cyberethics: Netiquette, Controversial material and censorship, and privacy issues.

*UNIT-IV*

Storage And Databases: Storage fundamentals - Compression and Decompression - Criteria for Rating Secondary Storage Devices - Diskettes - Hard Disks - Optical Disks - Magnetic Tapes - Organising Data in Secondary Storage: Databases, Data Storage - Hierarchy and the concept of the key field - File Management: Basic concepts - File Management Systems - Data Management Systems - Types of Database Organization - Features of a DBMS.

*UNIT-V*

Information System and Software Development: Management Information Systems - The Six phases of System Analysis and Design - The Five Steps in Programming - Five Generations of Programming Languages - Programming Languages - Object Oriented and Visual Programming - Internet Programming - HTML, XML, JAVA and ActiveX.

**REFERENCE BOOKS**

2.   Stacey C Sawyer, Brain K Williams, Sarah E Hutchinson, Using Information Technology - A Practical Introduction to Computer and Communications, ed2, The McGraw Hill Companies.

2.   J Hames O'Brien, Introduction to Information System.

# Paper 3.4: MOBILE COMPUTING

**Unit I**

Wireless and Mobile Network Architecture: Principle of Cellular Communication, Overview 1G, 2G, 2.5G and 3G and 4G technologies - GSM Architecture and Mobility management, hand off management, Network signaling - Mobile Computing fundamental challenges, Mobile Devices –PDA and mobile OS, PalmOs, Win CE and Symbian.

**Unit II**

Mobile IP Protocol Architecture: Mobile IP and IP v 6 and its application in mobile computing. - Cellular Digital Packet Data - CDPD, VOIP, GPRS Services, Wireless Local Loop-WLL system.

**Unit III**

Wireless Application Protocol (WAP): The Wireless Application Protocol application environment, wireless application protocol client software, hardware and websites, wireless application protocol gateways, implementing enterprise wireless application protocol strategy.

**Unit IV**

Wireless Markup Language: An Introduction to Wireless Technologies, Markup Languages , An Introduction to XML, Fundamentals of WML., Writing and Formatting Text , Navigating Between Cards and Decks, Displaying Images, Tables, Using Variables, Acquiring User Input.

**Unit V**

Wireless Markup Language Script: An Introduction to WMLScript, WMLScript Control Structures, Events, Phone.com Extensions, Usability.

**REFERENCE BOOKS**

1. Yi Bing Lin, Wireless and Mobile Networks Architecture, 2000, John Wiley.
2. MengLee et al., Beginning WAP: WML and WML Script, 2000, Wrox Publication
3. Tomasz Imielinski et.al, Mobile Computing, 1996, Kluwer Academic Press.

# Paper 3.5: RDBMS

**UNIT I**

DBMS: Database - Database Management System - Features - Advantages - Data Base Scheme - Schema and Subschema - Manipulative capabilities - Guidelines - Different User Interfaces.

**UNIT II**

Relational Model : Concepts of Relational Model - Comments on the Relational Model: Semantic issues, Navigation, Efficiency - DBMS based on the Relational Model: The mapping operation - Data Manipulation facilities - Data Definition facilities - Data Control facilities.

**UNIT III**

Introduction to Oracle: Types of Databases, Relational Database properties, Benefits of Oracle, Client/Server Systems - Oracle Database Architecture: Overview of Oracle Architecture, Processes, Physical files, CPU, Network System Tables, Oracle Users, Logical Structures.

**UNIT IV**

Oracle Fundamentals: Elements of SQL Language: Database Objects, Data Access SQL commands, DML commands - Oracle Queries - Basic Query, Using Expressions, Working with NULL values, Joining Multiple Tables in a Query, Selecting Distinct values, Using Subqueries, Unions and Multiple part Queries.

**UNIT V**

Table Creation: Create Table statement, Privileges required, Describing Table Definitions, Modifying Tables, Renaming a Table, Copying another table, Dropping a Table - Other Database Objects, Reason for Database Objects, Indexes - Embedded SQL: Languages supported by Oracle Precompiler, Embedded SQL statements.

**REFERENCE BOOKS:**
1. Naveen Prakash Introduction to Data Base Management Tata McGraw-Hill Pub. Co. Ltd.
2. Singh, Leigh, Zafian, et al. Oracle 7.3 Developers's Guide Techmedia Publications.

## Paper 3.6: Computer Lab IV (Visual Basic and Oracle Lab)

### VISUAL BASIC

1) Write and test a VB Program to Print twenty address labels in a two-column format for the address

> THE REGISTRAR
> ALAGAPPA UNIVESITY
> KARAIKUDI-630003.

2) Write and test a VB Program to read in Principal, Number of Years and Rate of Interest through INPUT Boxes, Compute and Print the Simple Interest and Compound Interest through labels.

3) Write and test a VB Program to compute the Surface area and volume of a sphere given the radius. Use Option buttons and INPUT Boxes.

> [Formula: A=4*3,14*R^2, V=4/3*3,14R^3]

20) Write and test a VB Program to compute and print either the SUM or the PRODUCT of the first N natural numbers. Use option button.

21) Write and test a VB Program to compute and print either the sum of odd numbers or even numbers at the user's choice using Label, Text and Option buttons.

22) Write a VB program to do temperature conversion C to F and F to C at user's choice using Label, Text and Enter Key.

23) Write and test a VB Program that allows the user choice among four arithmetic operations of addition, subtraction, multiplication and division with two given numbers.

24) Write and test a VB program to select candidates for four posts, based on their qualifications,

> MALE AND PG DEGREE            MANAGER
> MALE, GRADUATE & TYPING      CLERK
> FEMALE AND PG DEGREE     SECRETARY
> FEMALE, GRADUATE & TYPING     STENO

25) Write and test a VB program to display the Day of the given Date and Covert Upper Case from Lower Case to given Word.

26) Write a VB program to calculate Simple Interest or Compound Interest using three command buttons namely Input, Calculate, Display.

### ORACLE

   3.      Create table MARK with the following structure:

| Fieldname | Type | Width | Decimal |
|---|---|---|---|

| | | | |
|---|---|---|---|
| REGNO | Numeric | 8 | |
| NAME | Character | 20 | |
| TAMIL | Numeric | 3 | |
| ENGLISH | Numeric | 3 | |
| MATHS | Numeric | 3 | |
| BIOLOGY | Numeric | 3 | |

xii)    Add 5 Records.

xiii)   Show data in fields REGNO, NAME, TAMIL & BIOLOGY alone on the screen.

xiv)    Show data in fields REGNO, BIOLOGY & MATHS alone on the screen.

xv)     Show data in fields NAME & REGNO alone on the screen.

xvi)    Show all fields on the screen.

2) Create table ADDRESS with the following structure,

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| NAME | character | 20 | |
| STREET | Character | 20 | |
| CITY | Character | 20 | |
| PIN | Numeric | 6 | |

xi)     Add 5 Records.

xii)    Display the structure of the table.

xiii)   Add the field DISTRICT

xiv)    Fill all DISTRICT with MADURAI

xv)     Change the PIN to 630003 where city is KARAIKUDI  and PIN is 623003.

3) Create table RESULT with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| REGNO | Numeric | 8 | |
| NAME | Character | 20 | |
| MARK1 | Numeric | 3 | |
| MARK2 | Numeric | 3 | |
| MARK3 | Numeric | 3 | |
| TOTAL | Numeric | 3 | |
| RESULT | Character | 4 | |

vii)    Add 5 records (Fill all Fields except Total & Result fields),

viii)   Fill TOTAL field with the sum of  MARK1, MARK2, and MARK3.

ix)     fill the RESULT field with 'PASS' if TOTAL >= 150 otherwise 'FAIL'

4) Create table PAY with the following structure,

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| EMPNO | Numeric | 8 | |
| NAME | Character | 25 | |
| DOJ | Date | | |
| BPAY | Numeric | 8 | 2 |
| DA | Numeric | 8 | 2 |
| HRA | Numeric | 3 | |
| DEDU | Numeric | 3 | |
| GPAY | Numeric | 8 | 2 |
| NPAY | Numeric | 8 | 2 |

xv)     Add 5 Records, (Fill al fields except DA, HRA, DEDU, GPAY and NPAY)

xvi)    Fill DA with 75% of BAY for all employees.

xvii)   Fill HRA with 300 for all employees.

xviii)  Fill DEDU with 750 for all employees.

xix)    Fill GPAY with the sum of BPAY, DA and HRA.

xx)     Fill NPAY with GPAY – DEDU.

xxi)    Display EMPNO, NAME, BAPY, DEDU, GPAY, NPAY alone.

5) Create table BIODATA with following structure,

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| NAME | Character | 25 | |
| AGE | Numeric | 2 | |
| SEX | Character | 1 | |
| DEGREE | Character | 8 | |
| CITY | Character | 20 | |

xi)     Add 5 records, (BIODATA of 5 employees)

xii)    Display all records of MALE employees.

xiii)   Delete all BSC degree holders and then display the table contents.

xiv)    Remove all employee records whose AGE is greater than 20.

xv)     Display all records having AGE < 20 and CITY is TRICHY.

6) Create table LABEL with the following structure.

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| NAME | Character | 20 | |
| STREET | Character | 20 | |
| CITY | Character | 20 | |
| PIN | Numeric | 6 | |

xi)     Add 5 Records.

xii)    Display the  contents of the table.

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xiii) Display the Ascending order sorted list with NAME as primary key.

xiv) Display the Descending order sorted list with CITY as primary key.

xv) Display the contents with appropriate HEADINGS.

7) Create table PERSONAL with the following structure.

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| SNO | Numeric | 8 | |
| NAME | Character | 20 | |
| CITY | Character | 20 | |
| PIN | Numeric | 6 | |
| PHONE | Numeric | 6 | |

xv) Add 5 Records.

xvi) Display the contents of the table.

xvii) Display all names.

xviii) Display all names without duplicate.

xix) Display all names in uppercase, lowercase and Initial Capital letters.

xx) Display all names and length of names.

xxi) Display name, city in which only beginning portion of name is known.

8) Create table MARKS with the following structure.

| Fieldname | Type | Width | Decimal |
|-----------|------|-------|---------|
| REGNO | Numeric | 8 | |
| NAME | Character | 20 | |
| MARK1 | Numeric | 3 | |
| MARK2 | Numeric | 3 | |
| MARK3 | Numeric | 3 | |
| TOTAL | Numeric | 3 | |
| AVG | Numeric | 6 | |
| GRADE | Character | 1 | |

xv) Add 5 Records.

xvi) Replace all TOTAL with MARK1+MARK2+MARK3 and display the contents.

xvii) Replace all AVG with TOTAL/3 and display the contents.

xviii) Replace GRADE with the following conditions:

GRADE is A if AVG is greater than or equal to 60

GRADE is B if AVG is 40 to 59.

GRADE is C if AVG is less than 40.

xix) Display the Maximum marks in each subject.

xx) Display the Minimum marks in each subject.

xxi) Count the number of records for mark1 >50.

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9) Create table SALES with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| SALENO | Numeric | 5 | |
| SALENAME | Character | 20 | |
| SALEAMT | Numeric | 8 | 2 |
| COMM | Numeric | 6 | 2 |
| SALEDATE | Date | | |

xiii)  Add 5 Records.

xiv)  Replace COMM with the following conditions:

   If Sales amount is less than 1000 there is no commission.

   If Sales amount is greater than or equal to 1000 but less than or equal to 5000, commission is 5% of sales amount.

   If Sales amount is greater that 5000, commission is 10%.

xv)  Display all the records.

xvi)  Display the records having commission < 1000.

xvii)  Display the records having commission > 1000.

xviii)  Display the Average sales and Average commission.

10)  Create table BLOOD with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| DNO | Numeric | 3 | |
| DNAME | Character | 20 | |
| DOB | Date | | |
| DAGE | Numeric | 2 | |
| DADD1 | Character | 15 | |
| DADD2 | Character | 15 | |
| DCITY | Character | 15 | |
| DPIN | Numeric | 6 | |
| DBLOOD | Character | 3 | |
| DSEX | Character | 1 | |

xiii)  Add 5 Records.

xiv)  Display all the  records.

xv)  Display the information of donors in the age group 20 to 25 using BETWEEN option.

xvi)  Display the information of donors having date of birth BETWEEN 01-JAN-55 and 31-DEC-75.

xvii) Display the information of donors having any of the blood group from the set of blood groups using IN option.

xviii) Display the information of female donors with age between 20 and 25 using BETWEEN option.

27) Create table NUMB with the following structure.

| Fieldname | Type | Width | Decimal |
|---|---|---|---|
| NUM | Numeric | 6 | 2 |
| ABSNO | Numeric | 6 | 2 |
| SQRTNO | Numeric | 6 | 2 |
| ROUNDNO | Numeric | 6 | 2 |
| TRUNCNO | Numeric | 6 | 2 |
| SQRNO | Numeric | 6 | 2 |
| **CUBENO** | **Numeric** | **6** | **2** |

xix) Add 5 Records. (Some numbers must be negative or decimal)

xx) Display all the records.

xxi) Replace ABSNO with absolute value of given numbers.

xxii) Replace SQRTNO with square root value of given numbers.

xxiii) Replace ROUNDNO by using ROUND function.

xxiv) Replace TRUNCNO by using TRUNC function.

xxv) Replace SQRNO with square of given numbers.

xxvi) Replace CUBNO with cube of given numbers.

xxvii) Display all the records.

## Paper 3.7: Computer Lab V (Networking Lab)

1) Write a Java program to add two numbers using RMI client, server technique.
2) Write a Java program find factorial of given number using RMI client, server technique.
3) Write a Java program to find factorial of given number using FACTORIAL INTERFACE technique.
4) Write a Java program to setup a chat server and chat client.
5) Write a Java program to setup echo server and echo client.
6) Write a Java program to display the users and their IP addresses logged in the network.
7) Write a Java program to ENCRYPT given word
8) Write a Java program to setup Time server and Time client.
9) Write a Java program to send message from one system to another system.
10) Write a program to read a file from the remote system.

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| | | |
|---|---|---|
| **Course** | : | **Bachelor of Business Administration (BBA)** |
| Mode | : | Distance Education |
| Duration | : | Three Years |
| Eligibility | : | Pass in Higher Secondary / 3 year Diploma |
| Lateral Entry to II Year | : | 3 Year Diploma in Modern Office Practise |
| Medium | : | English and Tamil |

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Marks |
|---|---|---|
| **I YEAR** | | |
| 1.1 | Business Communication | 100 |
| 1.2 | Principles of Economics | 100 |
| 1.3 | Principles of Management | 100 |
| 1.4 | Business Environment | 100 |
| 1.5 | Financial Accounting | 100 |
| **II YEAR** | | |
| 2.1 | Banking Theory Law and Practice | 100 |
| 2.2 | Company Law | 100 |
| 2.3 | Business Statistics | 100 |
| 2.4 | Business Law | 100 |
| 2.5 | Cost Accounting | 100 |
| **III YEAR** | | |
| 3.1 | Production and Materials Management | 100 |
| 3.2 | Elements of Marketing | 100 |
| 3.3 | Management Accounting | 100 |
| 3.4 | Financial Management | 100 |
| 3.5 | Principles of Personnel Management | 100 |
| | **Total** | **1500** |

# Paper 1.1:  BUSINESS COMMUNICATION

*UNIT-I*
>   Structure of Business Letters: Layout  of business letter – Types of business letter – Enquiry,  Offers, Quotations and Orders.

**UNIT-II**
>   Trade references and status enquires – Confirmation and execution of orders – Refusal and cancellation of orders – Acknowledging receipts of goods and making payments.

**UNIT-III**
>   Complaints and settlements – Collection letters – Circular letters.

**UNIT-IV**
>   Agency  letters – Banking letters – Insurance letters.

**UNIT-V**
>   Drafting of Agenda and Minutes: Meaning – Types – Methods.

UNIT-VI
>   Reports: Types and preparation – Speech drafting – Occasions – Application for a situation.

**REFERENCE BOOKS:**
1. Bhal and Nagamiah, Modern Business Correspondence
2. Majumdar, Commercial Correspondence
3. Reddy & Appannaiah, Essentials of Business Communication
4. Rajendra Paul, Business Correspondence.

# Paper 1.2: PRINCIPLES OF ECONOMICS

UNIT-I

Law of demand – Consumer's surplus – Indifference curve analysis – Concept of elasticity – Limitations of consumer's sovereignty.

UNIT-II

Firm in the economy – External and internal economics – Factors limiting the size of the firm – The law of returns – Marginal revenue and Marginal cost – Optimum firm and Representative firm.

UNIT-III

Nature of costs in economics – Opportunity cost Vs Real cost – Fixed costs Vs Variable costs – Notion of marginal cost – Equilibrium of industry – Conditions of competitive equilibrium.

UNIT-IV

Markets – Nature of competition – Types of competition: Monopoly, Duopoly, Bilateral monopoly, Monopolistic competition.

Price theory and practices: Price discrimination under perfect competition – Price determination under monopoly – Price discrimination – Pricing under monopolistic competition – Pricing under oligopoly.

UNIT-V

Distribution: Wages – Marginal productivity – Theory of wages – Collective bargaining – Wage differentials – Wages and productivity – Wage regulation.

UNIT-VI

Rent – Scarcity Vs Differential rents – Quasi rent – Rent as surplus over transfer earnings – Rent as economic surplus.
Interest – Interest as reward for waiting – Liquidity preference theory.
Profit – Risk and uncertainty – Normal profits – Marginal productivity and profits.

**REFERENCE BOOKS :**
1. Stonier & Hage, Economic Theory
2. Samuelson Paul A, Economics
3. Edward Nevin, Text book of Economic analysis
4. Mehta P L, Managerial Economics.

# Paper 1.3: PRINCIPLES OF MANAGEMENT

**UNIT-I**

Management: Concepts – Nature – Importance – Modern Management approaches

**UNIT-II**

Planning: Nature and importance – Forms – Strategic and tactical – Types of Plans – Steps in Planning. Decision-making – Types of decisions – Decision-making process – Rationality in decision-making.

**UNIT-III**

Organisation: Process of organisation – Organisation structure – Departmentalisation – Span of management – Delegation – Authority, responsibility – Accountability – Decentralisation.

**UNIT-IV**

Directing: Principles – Elements – Motivation – Maslow, Herzberg, Vroom models – Communication process – Forms – Barriers – Overcoming barriers.

**UNIT-V**

Leadership Theories: Styles – Managerial grid. Co-ordination: Meaning – Need – Types.

**UNIT-VI**

Control: Controlling – Need for Control – Control Process – Control Techniques.

**REFERENCE BOOKS :**
1. Prasad L N, Reddy & Appanniah, Essentials of Management
2. Lallan Prasad, Koontz, O'Donnel, Essentials of Management
3. Koontz & O' Donnel, Essentials of Management

## *Paper 1.4: BUSINESS ENVIRONMENT*

**UNIT I**

Business Environment – Concept – Significance – Factors – Environmental influence on Business.

**UNIT II**

Social and Cultural Environment – Demographic Trend – Indian Social Structure – Caste and Communal Systems – Interplay of Various Systems – Impact on Business.

**UNIT III**

Political Environment - Directive Principles of State Policy – Centre – State Relations – Impact of Political Environment on Business.

**UNIT IV**

Economic Environment – Sectors of Economy and their significance – Agriculture, Industry, Service – Multinational Corporations – Meaning, Importance Advantages, Weakness.

**UNIT V**

Technological Environment – choice of Technology – Problems in Selecting Appropriate Technology – Importance to Business.

**UNIT VI**

Social responsibility – Responsibility towards various interest groups.

**REFERENCE BOOKS:**
1 Francis Cherunilam, Business Environment
2 Aswathappa K, Essentials of Business Environment
3 Garg V K, Economic Environment of Business
4 Sherlekar S A, Modern Business Organization and Management

# Paper 1.5: FINANCIAL ACCOUNTING

**UNIT I**

Rules for Journalizing – Posting of Accounts – Writing of different types of Cash Books – Writing of Purchase and sales Journals – Preparation of Trial Balance and Trading and Profit & Loss account and Balance Sheet of a Sole Proprietorship – Bank Reconciliation Statement.

**UNIT II**

Bills of Exchange and the treatment thereof – Average due date – Account Current – Consignment and Joint Venture Accounts.

**UNIT III**

Accounts of Non-Trading Concerns – Receipts and Payment Accounts, Income and Expenditure Accounts and Balance Sheet.

**UNIT IV**

Partnership: Fixed and Fluctuating Capitals – Current and Drawing Accounts – Interest on Capital and Drawings and Salary and Commission – Revaluation of Assets – Treatment of Goodwill – Admission – Retirement – Death of a Partner – Dissolution Excluding Garner Vs Murrey Decision and Sale  to a Company – final Accounts.(Simple Problems Only)

**UNIT V**

Company  Accounts: Issue of Shares and Debentures at Par, Premium and Discount – Forfeiture of Shares and Re-Issue of forfeited Shares – Simple Cases of Final Accounts.

**UNIT VI**

Final Accounts of Banking Companies – Prudential Accounting  Norms: Capital, Adequacy, Income Recognition, Asset Classification and Provisioning.

**REFERENCE BOOKS:**
1  Gupta R L, Advanced Accounting
2  Arulanandam M A, Raman K S, Advanced Accounting
3  Shukla M C & Grewal T S, Advanced Accounting

## *Paper 2.1: BANKING THEORY, LAW AND PRACTICE*

**UNIT I**

Commercial Banking – Functions of Commercial Banks – Balance Sheet – Credit Creation by Commercial Banks.

**UNIT II**

Central Banks – Functions – Credits Control Measures of the Central Bank.

**UNIT III**

Unit Banking – Branch Banking – Indian Commercial Banks, Nationalization of Major Commercial Banks – Objects – Place of Private Sector Banks.

**UNIT IV**

Indian Money Market – Different components – Backwardness of the Indian Money Market – Role of Commercial Banks in the Indian Money Market.

**UNIT V**

Law and Practice – Banker and Customer – General and Special Relationship – Bankers as Borrowers – Precautions to be taken before opening accounts – Legal significance of Fixed Deposit Receipts.

**UNIT VI**

Cheque – Requisites – Paying Banker – Collecting Banker – Pass Book – Closing of Accounts – Loans and Advances – Legal formalities and precautions.

**REFERENCE BOOKS:**
1. Basu, Theory and Practice of Development Banking
2. Muranjan S K, Modern Banking in India
3. Reddy, Appanniah, Natarajan & Gordon, Banking Theory and Practice.

# *Paper 2.2: COMPANY LAW*

**UNIT I**

Company: Meaning and Characteristics – Types of Companies – Private Company Vs Public Company, Formation of Company: Incorporation – Documents to be filed with the Registrar – Certificate of Incorporation - Promoter

**UNIT II**

Memorandum of Association – Contents – Alteration – Doctrine of Ultra-Wires – Articles – Alteration – Doctrine of Indoor Management, Prospectus: Definition, Contents of Prospects; Misrepresentation in prospectus – Statement in Lieu of Prospectus.

**UNIT III**

Share Capital and Membership in a Company: Share – Meaning and Types, allotment of Shares, transfer and transmission of shares.

**UNIT IV**

Company Management: Director – Definition – Qualification – Disqualification – Power – Duties and Liabilities of Directors.

**UNIT V**

Company Meetings: Statutory Meeting – Annual General Meeting – Extra-Ordinary General Meeting Requisites of a valid meeting – Board Meeting – Resolution – Types – Chairman – Duties and Powers

**UNIT VI**

Winding Up: Meaning – Modes of Winding up – Winding up by the Court Official Liquidator – Liquidator – Provisional Liquidator – Liquidator's Duties, Powers and Liabilities – Statement of affairs – Voluntary winding up – Types of voluntary winding up, Members and Creditors voluntary winding up – winding up subject to supervision of court.

**REFERENCE BOOKS:**
1      Kapoor N D, and Sen Gupta, Company Law
2      Shah S M, Lectures on Company Law

## *Paper 2.3: BUSINESS STATISTICS*

**UNIT I**

     Meaning and Scope of Statistics with Special Reference to Commercial Problems.

**UNIT II**

     Measures of Central Tendency: Arithmetic, Geometric and Harmony Means – Median and Mode – weighted Average – Characteristics of Different Averages.

**UNIT III**

     Measures of Dispersion – Range – Inter Quartile Range – Mean Deviation and the Standard Deviation, Skewness: Different Measures of Skewness.

**UNIT IV**

     Correlation(Linear Correlation Only), Interpolation.

UNIT V

     Index Number: Definition of Index Numbers – Use of index numbers – Cost of Living Index – Index numbers of Wholesale Prices.

**UNIT VI**

     Time Series: Seasonal, Cyclical and Irregular Fluctuations: Methods of Eliminating their influence – secular Trend.

**REFERENCE BOOKS:**
1. Elhance D N, Fundamentals of Statistics
2. Gupta S P, Statistics for Commerce Students
3. Gupta S P, Statistical methods

# Paper 2.4: BUSINESS LAW

**UNIT I**

Indian Contract Act 1872: Meaning and Essentials of a valid Contract – formation of contract.

**UNIT II**

Performance of Contract – Termination and discharge of Contract – Remedies for Beach of Contract – Quasi Contract.

**UNIT III**

Special Contracts: Indemnity and guarantee – Bailment – Agency.

**UNIT IV**

Sale of Goods Act, 1930: contract of Sale – Conditions and Warranties – Transfer of Property – Performance of the contract of sale, right of an unpaid seller.

**UNIT V**

Indian Partnership Act, 1932: Meaning and Test of Partnership – Registration of firms – Relations of Partners – Dissolution of firms.

Arbitration Act, 1940: Arbitration – arbitration without Intervention of Court Arbitration in suits.

**UNIT VI**

Carriage of Goods: Classification of common carriers – Rights, Duties and Liabilities of common carrier – Carriage by Rail – Contract of Affreightment – Charter Party – Bill of Lading – Carriage by air – Documents relating thereto – Liability of the air carrier.

Contract of Insurance – Basic Elements, kinds of Insurance – Fire Insurance – Marine Insurance.

**REFERENCE BOOKS:**
1. Kapoor N D, Elements of Mercantile Law
2. Sen and Mitra, Commercial Law
3. Shukla M C, Mercantile Law

# Paper 2.5: COST ACCOUNTING

UNIT I

Cost Accounting – Elements of Cost – Cost Concepts, Accounting and Control of Material Cost.

**UNIT II**

Labour – Wage Payment and Incentives – Labour Cost Control – Labour turnover.

**UNIT III**

Overhead – Classification – Allocation, Apportionment and Absorption of overhead.

**UNIT IV**

Process Costing – Process Losses – Inter-Process Profits.

**UNIT V**

Standard Costing – Variance Analysis.

**UNIT VI**

Cost Ledgers – Reconciliation of Cost and Financial Profits – Integral Accounting.

**REFERENCE BOOKS:**
1. Jain and Narang, Advanced Cost Accounting
2. Prasad N K, Iyengar S P and Nigam and Sharma Cost Accounting
3. Ratnam P V, Costing Adviser.

# Paper 3.1. PRODUCTION AND MATERIALS MANAGEMENT

UNIT I

Introduction – Production Function – Design of Production – Systems – Types of Process – Productivity – Ergonomics.

**UNIT II**

Plant Location and layout – Factors influencing Plant location – Relocation – Types of layouts – Process and Product layout – Layout of service facilities.

**UNIT III**

Production Planning and control – Planning – Routing – Scheduling – Despatching – Inspection – Gnatt Charts – Make or buy decisions.

**UNIT IV**

Materials Management – Concept – Purchasing – Vendor rating – Material Handling – Importance – Selection of material handling equipments.

**UNIT V**

Stores Management – Functions – Stores location – Stores layout – Essentials of a good layout – Stock verification.

**UNIT VI**

Inventory Management – Concept –Importance – Techniques.

**REFERENCE BOOKS:**
1. Buffa E S, Modern Production Management
2. Lundy J L, Effective Industrial Management
3. Bunga, Sharma, and Samuel Eliot, Production Management

## *Paper 3.2: ELEMENTS OF MARKETING*

**UNIT I**

Modern Marketing concept – Approaches to the study of Marketing – Features of Industrial, Consumer and Services Marketing.

**UNIT II**

Consumer Behaviour – Meaning – Factors influencing consumer behaviour – Market Segmentation Strategies – Marketing mix.

**UNIT III**

Product Planning and development – Product positioning – Product Life Cycle – Branding and Packaging.

**UNIT IV**

Pricing – Factors affecting pricing – Pricing objectives – Methods.

**UNIT V**

Physical Distribution – Middlemen functions – factors deciding choice of Channel.

**UNIT VI**

Promotional Mix: Personal Selling – Salesmanship – Sales Force – Selection, Training and Compensation – Evaluation of performance of Sale Force – Advertisement and Publicity – Meaning – Objectives – Copy – Media – Evaluation – Sales promotion: Methods and their uses.

**REFERENCE BOOKS:**
1. William J Stanton, Fundamental of Marketing
2. Mamoria C B & Satish Mamoria, Marketing Management
3. Gandhi J C, Rajan Nair, Marketing
4. Sherlekar S A, Essentials of Marketing Management

## *Paper 3.3: MANAGEMENT ACCOUNTING*

**UNIT I**

Management Accounting – Scope and importance – Management Accounting Vs Financial Accounting and Cost Accounting.

**UNIT II**

Ratio Analysis

**UNIT III**

Fund Flow and Cash flow Analysis.

**UNIT IV**

Budgeting and Budgetary Control – Sales Budget – Cash Budget – Operating Budget – Master Budget – Flexible Budget – Zero Base Budgeting – Performance Budgeting – Programme Budgeting.

**UNIT V**

Marginal Costing – Break Even Analysis – Differential Costing.

**UNIT VI**

Capital Budgeting – Nature and Significance – Methods of evaluation of Alternative Capital Expenditure Programme.

**REFERENCE BOOKS:**
1. Maheswari S N, Management Accounting and Financial Control
2. Man Mohan and Goyal, Management Accounting
3. Hingorani, Ramanathan, and Katyal, Management Accounting

## Paper 3.4: *FINANCIAL MANAGEMENT*

**UNIT I**

Meaning and Classification of Finance Function – Scope of Corporate Finance – Financial Organization – Objectives of Financial Management – Importance of Financial Management – Functions of Financial Controller.

**UNIT II**

Financial Planning – Meaning of Financial Planning – Characteristics of a Sound Financial Plan – Factors Affecting Financial Plan – Need of Financial Plan.

**UNIT III**

Capitalization – Over Capitalization and under capitalization – Watered Capital – Capital Structure – Determinants of Optimum Capital Structure

**UNIT IV**

Corporate Share Capital – Type of Securities – Preference Shares – Equity Shares, Corporate Debt – Meaning, Significance and limitations of Debentures – Debt Financing – Its uses and limitations – Plough back of profits – Its merits and limitations.

**UNIT V**

Term Loans – Institutional Finance – Public Deposits – Intercorporate Investments.

**UNIT VI**

Working Capital – Meaning – Classification of Working Capital – Importance of Working Capital – Determinants of Working Capital- Sources of Working Capital.

**REFERENCE BOOKS:**
1. Kuchal S C, Corporation Finance
2. Kulkarni P, Financial Management
3. Pandey I M, Financial Management

## Paper 3.5: *PRINCIPLES OF PERSONNEL MANAGEMENT*

**UNIT I**

Personnel Management – Definition – Objectives and functions – Role and Structure of Personnel Function in Organizations – Personnel Principles and Policies.

**UNIT II**

Human Resource Planning – Need for Planning – HRP Process – Job Analysis – Job Description – Job specification.

**UNIT III**

The selection process – Placement and induction – Training and development – Promotion – Demotions – Transfers – Separation.

**UNIT IV**

Performance Appraisal – Objectives – Methods.

**UNIT V**

Wage and salary administration – Factors – Principles – Compensation plan – Individual – Group – Incentives – Bonus – Fringe Benefits – Job evaluation Systems.

**UNIT VI**

Employee Maintenance and integration – Welfare and safety – Employee Discipline – Principles of discipline – Grievances – Causes – Principles of Grievances handling.

**REFERENCE BOOKS:**

1. Venkataratnam C S, and Srivastava, Personnel Management and Human Resources, Tata McGraw Hill, 1991.
2. Arun Monappa, Industrial Relations, Tata McGraw Hill, 1987.
3. Dale Yodder and Paul D, Standohar, Personnel Management and Industrial Relations, Sterling Publishers, 1990.
4. David A Decenzo and Stephen P Robbins, Personnel/Human Resource Management, Prentice Hall, 1955.

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| Course | : | **B.B.A. (Corporate Secretaryship)** |
|---|---|---|
| Mode | : | Distance Education |
| Duration | : | Three Years |
| Eligibility | : | Pass in Higher Secondary / 3 year Diploma |
| Lateral Entry to II Year | : | 3 Year Diploma in Modern Office Practise |
| Medium | : | English only |

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|---|---|---|
| **I YEAR** | | |
| 1.1 | Business Communication | 100 |
| 1.2 | Basic Financial Accounting | 100 |
| 1.3 | Principles of Management | 100 |
| 1.4 | Company Law | 100 |
| 1.5 | Managerial Economics | 100 |
| **II YEAR** | | |
| 2.1 | Secretarial Practice | 100 |
| 2.2 | Commercial Law | 100 |
| 2.3 | Business Statistics | 100 |
| 2.4 | Advanced Accountancy | 100 |
| 2.5 | Corporate Finance | 100 |
| **III YEAR** | | |
| 3.1 | Capital Market Laws | 100 |
| 3.2 | *Tax Laws | 100 |
| 3.3 | Economic Laws | 100 |
| 3.4 | Cost Accounting | 100 |
| 3.5 | Financial Services | 100 |
| | **Total** | **1500** |

**\* Course materials will not be given to this subject. Students are advised to refer Student's Guide to Income-Tax by Dr. V.K. Singhania (or) by Dr. Malhotra and Dr. Goyal and for 'Indirect Taxation' by Dr. V. Balachandran (or) by V.S. Datey.**

# Paper 1.1:  BUSINESS COMMUNICATION

*UNIT-I*

Structure of Business Letters: Layout  of business letter – Types of business letter – Enquiry,  Offers, Quotations and Orders.

## UNIT-II

Trade references and status enquires – Confirmation and execution of orders – Refusal and cancellation of orders – Acknowledging receipts of goods and making payments.

## UNIT-III

Complaints and settlements – Collection letters – Circular letters.

UNIT-IV

Agency  letters – Banking letters – Insurance letters.

## UNIT-V

Drafting of Agenda and Minutes: Meaning – Types – Methods.

## UNIT-VI

Reports: Types and preparation – Speech drafting – Occasions – Application for a situation.

## TEXT AND REFERENCE BOOKS:

| | | |
|---|---|---|
| 1. Bhal and Nagamiah | : | Modern Business Correspondence |
| 2. Majumdar | : | Commercial Correspondence |
| 3. Reddy & Appannaiah | : | Essentials of Business Communication |
| 4. Rajendra Paul | : | Business Correspondence. |

# Paper 1.2: BASIC FINANCIAL ACCOUNTING

## UNIT-I

Introduction :- Need for accounting, definition, Advantages of Accounting, Methods of Accounting, the Journal, Transaction analysis of Journal entries, Ledger, Posting, Maintaining Purchase books, Trail balance – Meaning, definition, Methods of preparation, Final Accounts, Manufacturing Accounts, Trading profit and loss Accounts, Balance Sheet – Adjustments.

## UNIT-II

Bills of exchange and the treatment: Average due date ,Meaning, Uses: Determination of due date, Average due date for calculation of interest – Determination of due date.

## UNIT-III

Final accounts of non-trading concern:- Introduction, Final Accounts, Final accounts for non profit organization, Receipts and Payment accounts, Income and Expenditure Accounts, Balance sheet.

## UNIT-IV

Single Entry:- Meaning, definition, features, limitations, difference between double and single entry system.

## UNIT-V

Consignment: Meaning, Features of Consignment transaction, distinction between consignment and sale, Accounting treatment of consignment transactions – Joint Venture, meaning, features , difference between Joint venture and Partnership,. Joint Venture and Consignment.

## UNIT-VI

Self-balancing Legers: Introduction – Debtors ledger – Creditors ledger – General ledger – Procedure of self-balancing – Adjustment accounts – Journal entries of self balancing – Different methods of depreciation.

**TEXT AND REFERENCE BOOKS:**

1. Dr.M.A. Arulanandam & K.S. Raman     : Advanced Accountancy
2. M.C.Sukhla and T.S. Grewal           : Advanced Accountancy
3. Jain & Narang                        : Advanced Accounts
4. R.L. Gupta                           : Advanced Accounting

# Paper 1.3:  PRINCIPLES OF MANAGEMENT

## UNIT-I

Management: Concepts – Nature – Importance – Approaches to modern management – Contributors to management sector.

## UNIT-II

Planning: Nature – Purpose and importance – Premises of planning – Types of plans – Steps in Planning: Decision-making – Types – Process – Rationality in decision-making.

## UNIT-III

Organising: Principles and process of organisation – Types – Structure – Centralisation Vs Decentralisation – Departmentalisation – Span of management – Delegation – Authority – Responsibility – Accountability.

## UNIT-IV

Staffing:  Man power planning – Job analysis – Selection technique – Analysis – Planning and implementation.

## UNIT-V

Directing: Principles – Elements – Motivation – Maslow, Herzberg, Vroom models – Communication process – Forms – Barriers – Overcoming barriers – Leadership: Managerial grid – Styles.

## UNIT-VI

Co-ordination: Meaning – Importance – Types – Control: Meaning – Need for Control – Control Process – Control Techniques.

**TEXT AND REFERENCE BOOKS :**

1.  Essentials of Management, L.N. Prasad
2.  Essentials of Management, Reddy & Appanniah
3.  Essentials of Management, Koontz & O' Donnel

# Paper 1.4:  COMPANY LAW

## UNIT-I

Company: Meaning – Characteristics – Types – Corporate personality – Corporate veil – Lifting of corporate veil – Incorporate – Documents to be filed – Preliminary contracts – Promoter – Duties.

## UNIT-II

Memorandum of Association: Meaning – Purpose – Contents – Doctrine of ultra vires – Effects – Alteration – Articles of Association: Purpose – Contents – Alteration – Doctrine of Constructive notice and Indoor management – Prospectus: Definition – Registration – Contents – Misrepresentation in prospectus – Consequences.

## UNIT-III

Share Capital and Membership of Company: Share – Meaning – Kinds – Allotment of shares – Forfeiture and reissue of shares – Transfer and transmission of shares – Alteration of share capital.

Membership: Types – Methods of creation of membership.

## UNIT-IV

Company Management:  Director: Meaning – Appointment – Qualification – Disqualification – Vacation – Removal – Powers, duties and liabilities.

## UNIT-V

Company Meetings: Requisites of valid meeting – Types – Statutory, AGM, EGM, Board Meetings – Minutes – Chairman: Duties – Resolutions – Kinds of resolutions.

## UNIT-VI

Winding up:  Meaning – Modes of winding up – Compulsory winding up – Voluntary winding up – Winding up subject to the supervision of the Court – Liquidation – Powers and duties.

**TEXT AND REFERENCE BOOKS:**

1. Kapoor N D, 'Company Law'.
2. Sen Gupta B K, 'Company Law', Eastern Law Book House.
3. Shah S M, 'Lectures on Company Law', N.M. Tripathi P. Ltd., Mumbai.

## Paper 1.5:  MANAGERIAL ECONOMICS

**UNIT-I**

Managerial Economics:  Concept – Nature – Scope – Functions – Concepts of scarcity – Marginalism – Equi marginalism.

UNIT-II

Opportunity costs – Time perspective – Risk and uncertainty.

UNIT-III

Demand Function: Concept – Types of demand – Determinants – Cardinal and ordinal utility analysis.

UNIT-IV

Demand Curves – Demand elasticity – Demand forecasting.

UNIT-V

Production Function:  Cost concepts – Total, average and marginal cost analysis – Returns to scale – Cobb-Douglas production function.

UNIT-VI

Price-output Function:  Output and price decisions under perfect competition, monopolistic competition, monopoly and duopolistic conditions – Pricing strategies.


**TEXT AND REFERENCE BOOKS:**

1. Mehta P L, 'Managerial Economics'.
2. Adhikary M, 'Managerial Economics'.
3. Gupta M & Samuel Paul, 'Managerial Economics'.
4. Chopra O P, 'Managerial Economics'.

## Paper 2.1: SECRETARIAL PRACTICE

**UNIT-I**

Company Secretary: Appointment – Dismissal – Role of company secretary.

UNIT-II

Secretarial procedure for issue of shares – Allotment of shares – Issue of share certificate – Transfer and transmission of shares – Registration of charges – Effects of non-registration.

UNIT-III

Types of meetings – Secretarial duties in connection with Statutory Meeting, AGM, EGM and Board Meeting.

UNIT-IV

Procedures for payment of dividends – Treatment of unclaimed dividend.

UNIT-V

Secretarial procedure for the appointment of directors and their removal.

UNIT-VI

Winding up: Procedure for winging up – Duties of secretary in respect of winding up – Procedures after winding up orders – Defunct company.

**TEXT AND REFERENCE BOOKS:**

1. Ghosh P K, 'Company Law and Secretarial Practice'.
2. Tandon B N, 'Manual of Secretarial Practice'.
3. Bhat V K & Kaira, 'Textbook of Secretarial Practice'.

# Paper 2.2: COMMERCIAL LAW

UNIT-I
**Indian Contract Act 1872:** Meaning and essentials of a valid contract – Formation of contract – Performance of contract – Termination and discharge of contract – Remedies for beach of contract – Quasi contract.

UNIT-II
**Special Contracts:** Indemnity and guarantee – Bailment – Agency.

UNIT-III
**Sale of goods act.1930:** Contract of sale – Conditions and warranties - Transfer of property – Performance of the contract of sale. Rights of an unpaid seller.

UNIT-IV
**Negotiable Instruments Act,1881:** Negotiable instruments – parties to a negotiable instrument – Material alteration – crossing of cheques – Endorsement – Payment and collection of cheques.

UNIT-V
**Indian Partnership Act ,1932:** Meaning and test of partnership – Registration of firms  - Relations of partners – Dissolution of firms.

**Arbitration Act, 1940:** Arbitration – arbitration without intervention of court – Arbitration in suits.

**UNIT-VI**
**Carriage of Goods:** Classification of common carriers – rights, duties and liabilities of common carrier – Carriage by rail – Contract of affreightment – Charter party – Bill of lading – Carriage by air – Documents relating thereto – Liability of the air carrier.
**Contract of insurance** - Basic elements, kinds of insurance – Fire insurance – Marine insurance.

**TEXT AND REFERENCE BOOKS:**
1. Kapoor, N.D.          : Elements of Mercantile law
2. Sen and Mitra         : Commercial Law
3. Shukla,M.C.           : Mercantile law
4. Relevant bare acts.

# Paper 2.3:  BUSINESS STATISTICS

**UNIT-I**

  **Business Statistics:**  Meaning – Scope.

UNIT-II

  **Measures of Central Tendency:**  The arithmetic, geometric and harmony means – Median and mode – Weighted average – Characteristics of different averages.

UNIT-III

  **Measures of Dispersion:** The Range – The Iner Quartilerange – The Mean deviation and the Standard deviation.

UNIT-IV

  **Skewness:** Different measures of skewness – Correlation (Linear Correlation only) – Interpolation.

UNIT-V

  **Index Number:**  Definition – Use of the index number – Cost of living index – Index numbers of wholesale prices.

UNIT-VI

  **Time Series:**  Seasonal cyclical and irregular fluctuations – Methods of eliminating their influence – Secular trend.


**TEXT AND REFERENCE BOOKS:**

1. Elhance D N, 'Fundamentals of Statistics'.
2. Gupta S P, 'Statistics for Commerce Students'.
3. Gupta S P, 'Statistics Methods'.

# Paper 2.4: ADVANCED ACCOUNTANCY

## UNIT-I

Partnership Accounts: Partner's admission – Retirement of a partner – Death of a partner.

## UNIT-II

Joint life policy – Amalgamation of firms – Dissolution of a partnership firm – Insolvency of a partner – Garner Vs. Murray – Piecemeal distribution – Sale to a company.

## UNIT-III

Company Accounts: Issue of shares – Issue of redeemable preference shares – Forfeiture and re-issue of shares – Redemption on redeemable preference shares – Issue of debentures – Redemption of debentures.

UNIT-IV

Company final accounts – Profits prior to incorporation.

## UNIT-V

Amalgamation – Absorption – Reconstruction.

## UNIT-VI

Department and Branch accounts – Hire purchase and instalment systems – Royalties – Fire claims.

## TEXT AND REFERENCE BOOKS:

1. M.A. Arulanandam & K.S. Raman      : Advanced Accounting
2. M.C.Shukla & T.S. Grewal      : Advanced Accounting
3. R.L.Gupta      : Advanced Accounting
4. Jain & Narang      : Advanced Accounting

# Paper 2.5: CORPORATE FINANCE

## UNIT-I

**Finance Function:** Meaning – Scope – Classification of finance function – Financial Organisation – Objectives of financial management – Importance of financial management – Functions of financial controller.

## UNIT-II

**Financial Planning:** Meaning – Need – Characteristics – Factors affecting financial plan – Capitalisation: Over capitalisation – Under capitalisation – Watered capital.

## UNIT-III

Capital Structure – Determinants of optimum capital structure.

## UNIT-IV

**Corporate Share Capital:** Types of securities: Preference shares – Equity shares – Corporate debt: Meaning – Significance – Limitations of debentures – Debt financing – Its uses and limitations – Plough back of profits – Its merits and limitations.

## UNIT-V

**Term Loans:** Institutional finance – Unit Trust of India – Industrial Finance Corporation – State Finance Corporations – ICICI and IDBI.

## UNIT-VI

**Working Capital:** Meaning – Classification – Importance – Sources of working capital – Determinants of working capital.

**TEXT AND REFERENCE BOOKS:**

1. Kuchal S C, 'Corporation Finance'.
2. Kulkarni P, 'Financial Management'.
3. Pandey I M, 'Financial Management'.

# Paper 3.1: CAPITAL MARKET LAWS

## UNIT-I

**Indian Capital Market:** Organisation and structure of the securities market in India – Promote capital market.

## UNIT-II

**Securities Contracts (Regulation) Act, 1956:** Objects – Need for regulatory framework – Recognition and withdrawal of recognition of stock exchanges – Bye-laws – Membership in Stock Exchanges – Eligibility – Recommendations of High Powered Committee – Powers of Central Government in regulating Stock Exchanges.

## UNIT-III

**Securities and Exchange Board of India Act, 1992:** Objects – Establishment and management of the board – Functions of SEBI – Registration of stock brokers – Sub-brokers – Share transfer agents.

## UNIT-IV
**Merchant Brokers:** Power to make rules and regulations – Penalty provisions.

## UNIT-V

**OTCEI:** Objectives – Establishment of OTCEI – Features – Listing on OTC Exchange – Trading on OTC Exchange – Benefits of OTC Exchange.

## UNIT-VI

**National Stock Exchange:** Objectives – Features – Trading on NSE.

**TEXT AND REFERENCE BOOKS:**

1. Avadani V, 'Securities Market'.
2. Bare Acts of Relevant Acts.

# Paper 3.2:  TAX LAWS

## UNIT-1

Basic concepts - Assessee - Person - Income - Assessment year - Previous year - Exceptiant - Agricultural income.

## UNIT-II

Basics of charge - Determination of residential status for Individual, HUF, Firm, A.P.O and Body of individuals. Company - Incidence of tax scope of total income).

## Unit -III

Exempted Incomes

## UNIT-IV

Salaries — Income from house property - Profits and gains of business or profession.

## UNIT-V

Capital gains - Income from other sources.

## UNIT-VI
Aggregation of Income

## REFERENCE BOOKS
1. Vinod K. Singhania, Students Guide to Income Tax, Taxmann Publications.
2. Girish Ahuja and Ravi Gupta, Systematic Approach to Income Tax, Bharath Law House, New Delhi.
3. Mehrotra & Goyal, Direct Taxes: Law and Practice, Sahithya Bhavan, Agra.
4. Bhagavathi Prasad, Direct Taxes: Law and Practices, New Age International Publishers, New Delhi.
5. Income Tax, T.S. Reddy and Y. Hari Prasad Reddy, Margham Publications, Chennai.
6. ICSI Study material on Tax Laws
7. Bare Acts

# Paper 3.3: ECONOMIC LAWS

**UNIT-I**

**The Industries (Development and Regulation) Act, 1951:** Objectives – New article – Industrial undertaking substantial expansion – Central Advisory Council – Development Council – Regulation of Scheduled Industries – Power to cause investigation to be made into scheduled industries – Notified order – Effect of notified order to assume management or control of an industrial undertaking.

**UNIT-II**

**Foreign Exchange Regulation Act, 1973:** Objectives – Foreign exchange – Authorised dealer – Person resident in India and outside India – Transactions regulated by exchange control – Restrictions in dealing sin foreign exchange – Restriction on payments made to non-residents.

UNIT-III

Non-resident Accounts – Non-resident ordinary rupee accounts – Non-resident (external) rupee accounts – Foreign currency (Non-resident) accounts – Investment by Non-resident Indians in shares of Indian companies.

**UNIT-IV**

**Monopolies and Restrictive Trade Practices Act, 1969:** Objectives – Trade practice – Undertaking service – Types of restrictive trade practice – Restrictive, Monopolistic, Unfair trade practices – MRTP Commission – Constitution – Scope – Powers of MRTP Commission.

**UNIT-V**

**Essential Commodities Act, 1955:** Objectives – Essential commodity – Control of production, supply – Distribution of essential commodities – Seizure and confiscation of essential commodities – Appeal against confiscation order – Offences by companies.

**UNIT-VI**

**Environment Protection Act, 1986:** Objectives – Salient features of the Act – Nature and type of regulation under the Act – Powers of various authorities – Liability for offence under the Act.

**TEXT AND REFERENCE BOOKS:**

1. Chaudhry U K, 'Economic Legislations'.

2. Gulshan S S , 'Economic and other Legislations'.

# Paper 3.4 COST ACCOUNTING

UNIT-I

      Cost Accounting – Elements of Cost – Cost Concepts, Accounting and Control of Material Cost.

**UNIT-II**

      Labour – Wage Payment and Incentives – Labour Cost Control – Labour turnover.

**UNIT-III**

      Overhead – Classification – Allocation, Apportionment and Absorption of overhead.

**UNIT-IV**

      Process Costing – Process Losses – Inter-Process Profits.

**UNIT-V**

      Standard Costing – Variance Analysis.

**UNIT-VI**

      Cost Ledgers – Reconciliation of Cost and Financial Profits – Integral Accounting.

**TEXT AND REFERENCE BOOKS:**

4.  Jain and Narang, Advanced Cost Accounting
5.  Prasad N K, Iyengar S P and Nigam and Sharma Cost Accounting
6.  Ratnam P V, Costing Adviser.

# Paper 3.5: FINANCIAL SERVICES

**UNIT-I**

Financial Services: Meaning – Nature – Analysis of financial services – Need for financial innovation – Financial services and market environment – Development of financial markets. Finance companies: Functions – Strengths and weakness.

**UNIT-II**

Commercial banking and their fund based and non-fund based financial services – Leasing – Hire purchases financing – Salient features – Guidelines – Functions.

**UNIT-III**

Mutual Funds: Types of mutual funds – Floatation – Asset management – Company mutual funds – Regulations.

**UNIT-VI**

Factoring – Forfeiting – Securitisation – Venture capital – Consumer finance and credit cards – Salient features – Guidelines – Functions – Strategies involved in financing.

**UNIT-V**

Merchant banking including public issue management – Underwriting – Portfolio management – Stock and security broking.

UNIT-VI

Credit rating services – Salient features – Guidelines – Functions.

**TEXT AND REFERENCE BOOKS:**

1. Prasanna Chandra, 'Financial Management'.
2. Avadani, 'Investment Management including Securities Market'.
3. Varma, 'Merchant Banking'.

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| Course | : | **B.B.A. (Banking)** |
| Mode | : | Distance Education |
| Duration | : | Three Years |
| Eligibility | : | Pass in Higher Secondary / 3 year Diploma |
| Lateral Entry to II Year | : | 3 Year Diploma in Modern Office Practise |
| Medium | : | English only |

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|---|---|---|
| **I YEAR** | | |
| 1.1 | Business Communication | 100 |
| 1.2 | Principles of Economics | 100 |
| 1.3 | Money and Banking | 100 |
| 1.4 | Rural Banking | 100 |
| 1.5 | Financial Accounting | 100 |
| **II YEAR** | | |
| 2.1 | Practice and Law of Banking-I | 100 |
| 2.2 | Management Practice | 100 |
| 2.3 | Business Statistics | 100 |
| 2.4 | Business Law | 100 |
| 2.5 | Foreign Exchange and Financing of Foreign Trade | 100 |
| **III YEAR** | | |
| 3.1 | Practice and Law of Banking-II | 100 |
| 3.2 | Marketing of Banking Services | 100 |
| 3.3 | Management Accounting | 100 |
| 3.4 | Computers and Banking | 100 |
| 3.5 | Development Banking | 100 |
| | **Total** | **1500** |

# Paper 1.1: BUSINESS COMMUNICATION

*UNIT-I*

Structure of Business Letters: Layout of business letter – Types of business letter – Enquiry, Offers, Quotations and Orders.

**UNIT-II**

Trade references and status enquires – Confirmation and execution of orders – Refusal and cancellation of orders – Acknowledging receipts of goods and making payments.

**UNIT-III**

Complaints and settlements – Collection letters – Circular letters.

UNIT-IV

Agency letters – Banking letters – Insurance letters.

**UNIT-V**

Drafting of Agenda and Minutes: Meaning – Types – Methods.

**UNIT-VI**

Reports: Types and preparation – Speech drafting – Occasions – Application for a situation.

**REFERENCE BOOKS:**
1. Bhal and Nagamiah, Modern Business Correspondence
2. Majumdar, Commercial Correspondence
3. Reddy & Appannaiah, Essentials of Business Communication
4. Rajendra Paul, Business Correspondence

# Paper 1.2: PRINCIPLES OF ECONOMICS

**UNIT-I**

National Income – Significance of National Income – Methods of measuring National Income – National Income in India.

Organization of production – Agents of production – Factors affecting the growth of population – The Malthusian Theory – Optimum population – Division of Labour – Role of capital in production – Mobility of factors and its significance.

**UNIT-II**

Consumer Behavior – Law of Demand – Consumer's surplus – Indifference Curve Analysis – Concept of Elasticity – Limitations of consumer's sovereignty.

**UNIT-III**

The Firm in the Economy – External and Internal Economies – Factors limiting the size of a firm – The law of Returns – Marginal Revenue and Marginal Cost – Optimum Firm and Representative Firm.

**UNIT-IV**

Nature of costs in Economics – Opportunity Cost Vs Real Cost – Fixed Costs Vs Variable Costs – Notion of Marginal cost – Equilibrium of Industry – Conditions of Competitive Equilibrium.

Markets – Nature of Competition – Types of Competition: Monopoly, Duopoly, Bilateral Monopoly, Monopolistic Competition, Oligopoly.

**UNIT-V**

Price Theory and practices : Price Determination under perfect Competition – Price Determination under monopoly – Price Discrimination – Pricing under Monopolistic Competition – Pricing under Oligopoly.

Distribution: Wages – Marginal Productivity Theory of Wages – Collective Bargaining – Wage Differentials – Wages and productivity – Wage Regulation

**UNIT-VI**

Rent – Scarcity Vs Differential Rents - Quasi Rent – Rent as surplus over transfer earnings – Rent as Economic Surplus.

Interest – Interest as Reward for waiting – Liquidity Preference Theory.

Profit – Risk and uncertainty – Normal Profits – Marginal Productivity and profits.

**REFERENCE BOOKS:**
1. Stonier & Hague, Economy theory
2. Samuelson Paul A, Economics.
3. Edward Nevin, Text Book of Economic Analysis.
4. Mehta P L, Managerial Economics

# Paper 1.3: MONEY AND BANKING

**UNIT-I**

Nature and functions of money: Barter System – What is money? - Evolution of money – Characteristics of money – Functions of money – Role and importance of money in a modern economy.

**UNIT-II**

Value of Money and its Measurement: Concept of value of money – Measurement of changes in the value of money – Construction of Price Index Number – Quantity theory of money – Inflation and Deflation.

**UNIT III**

Financial Markets: Money market – Its meaning – Constituents of the money market – Characteristics of developed and under developed money markets – Indian money market – Its characteristics and structure – Capital market.

**UNIT IV**

Commercial Banking: Evolution – Definition of banking – Functions of commercial banks – Credit creation – Balance sheet of Commercial Banks – Organization and structure of banks – Types of banks.

**UNIT V**

Commercial Banking in India: Structure of the commercial banking system –Scheduled Vs non scheduled commercial banks – State Bank of India – Its evolution and functions – SBI and rural financing – SBI and industrial development – Role of Public sector banks – Indian Private sector banks – Their present position, problems and prospects – Exchange banks in India – Their role in financing of foreign trade – Financial sector reforms and commercial banks.

**UNIT VI**

Central Banking: Evolution – Definition of a central bank Functions of a Central Bank – Role of the Central Bank in a developing economy – Monetary policy.

Reserve Bank of India: Evolution and organization of the RBI – Functions of the RBI – Monetary policy of the RBI.

**REFERENCE BOOKS:**
1. D.M. Mithani, Money, Banking, International Trade and Public Finance, Himalaya Publishing House, Bombay.
2. KPM Sundaram, Monetary Theory and Practice, Sultan Chand & Sons, New Delhi.
3. P. Subha Rao, Currency and Banking
4. M. Madhusudhana Rao & V. Surya, Tata McGraw Hill Publishing Company
5. Dhingra & Garg, Monetary Theory & Practice, Sultan Chand & Co., New Delhi.

# Paper 1.4: RURAL BANKING

## UNIT-I

Indian Rural Economy: Features and Composition – Sources of Rural Finance in India – Requisites of a Good Rural Finance System.

## UNIT-II

Institutional Infrastructure for Rural Finance: Co-operative Banks, Commercial Banks and Regional Rural Banks: Their Evolution, Structure and Functions.

## UNIT-III

Priority Sector Credit: Concept and Components – Rural Development Programmes: Integrated Rural Development Programme (IRDP), Bio-gas Programme, New 20-points Economic Programme, Prime Minister's Rozgar Yojana (PMRY) – Scavengers Rehabilitation Programme (SRP) – Their features – Self Help Groups.

## UNIT-IV

Management of Rural Development Projects – Project Dimension, Identification and formulation – Project Appraisals: Technical Feasibility, Economic Viability and Financial Feasibility – Planning and Management of Project Implementation – Monitoring Development Project – Project Evaluation.

## UNIT V:

Credit Planning at the Gross Root Level: Lead Bank Scheme and Service Area Approach.

## UNIT VI:

Institutions supporting Rural Development: Reserve Bank of India (RBI), National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), District Industries Centre (DIC), Khadi Village Industries Commission (KVIC), Tamilnadu Adivasi Housing & Development Corporation (TAHDCO) and Non-Governmental Organizations (NGOs) – Their role.

**REFERENCE BOOKS:**
1. I.C. Dhingra, Rural Banking in India, Sultan Chand & Sons, New Delhi.
2. N.S.Bhat, Aspects of Rural Banking, Common Wealth Publishers, New Delhi.
3. D.P. Sarda, Hand book on Lending to Priority Sector, Govind Prakashan Publications, Jaipur.

## Paper 1.5: FINANCIAL ACCOUNTING

**UNIT I**

Rules for Journalizing – Posting of Accounts – Writing of different types of Cash Books – Writing of Purchase and Sales Journals – Preparation of Trial Balance and Trading and Profit & Loss Account and Balance Sheet of a Sole proprietorship – Bank Reconciliation Statement.

**UNIT II**

Bills of Exchange and the treatment thereof – Average Due Date – Account Current – Consignment and Joint Venture Accounts.

**UNIT III**

Accounts of non-trading concerns – Receipts and Payment Accounts, Income and Expenditure Accounts and Balance Sheet.

**UNIT IV**

Simple Partnership Accounts – Fixed and Fluctuating Capitals – Current and Drawing Accounts – Interest on Capital and Drawings and Salary and Commission – Revaluation of Assets – Treatment of Goodwill – Admission – Retirement – Death of a Partner – Dissolution excluding Garner Vs Murray Decision and Sale to a Company – Final Accounts.

**UNIT V**

Company Accounts: Issue of Shares and debentures at par, premium and discount – Forfeiture of Shares and re-issue of for-feinted shares – simple cases final Accounts.

**UNIT VI**

Final Accounts of Banking Companies – Prudential Accounting Norms: Capital Adequacy, Income Recognition, Asset Classification & Provisioning.

**REFERENCE BOOKS:**
1. Gupta, R.L., Advanced Accounting.
2. Shukla, M.C. & Grewal, T.S., Advanced Accounting.
3. Arulanandam, M.A. & Raman, K.S., Advanced Accounting.

# Paper 2.1: PRACTICE AND LAW OF BANKING - I

**UNIT I**

Definition of banking – Relationship between banker and customer – General relationship – Obligations of a banker: Obligation to honour cheques and to maintain secrecy of accounts – Banker's rights: Right of general line, set-off, appropriation and to charge interest and incidental charges.

**UNIT II**

Negotiable Instruments – Definition – Characteristics features – Distinguishing features of cheque, bill and promissory note – Types of bills of exchange – Trade bills and accommodation bills – Discounting of bills – Due date of bills – Dishonour of bills – Noting and protesting – Holder and Holder in due course of negotiable instruments – Payment in due course – Return of cheques.

**UNIT III**

Endorsements – Definition – Kinds – Crossing – Types – MICR Cheques – Paying banker; Precautions to be taken before a cheque for payment and statutory protection – Collecting banker Duties and Statutory Protection.

**UNIT IV**

Types of customers and account holders – Procedure and practice in opening and conducting the accounts of customers viz., Minors, Joint account holders, Partnership firms, Joint stock companies, Executors and Trustees, Clubs and Associations, Joint Hindu Family etc – Non-Resident Accounts.

**UNIT V**

Different types of accounts in a bank: Savings, Current and Fixed deposit accounts – Opening, Operation and Closing of such accounts – Legal aspects of entries in the Pass Book.

**UNIT VI**

Services to customers: Remittance of funds, Safe Deposit Lockers, Guarantee, Letters of credit, Travellers cheques, Gift cheques, Credit Cards, Merchant Banking Services, Investment Counseling, carrying out standing instructions and other miscellaneous services.

**REFERENCE BOOKS:**

1. Tannan, M.L, Banking Law and Practice in India, Thacker & Co. Ltd., Bombay, Latest Edn.
2. Sundaram & Varshney, Banking Theory, Law and Practice, Sultan Chand & Sons, New Delhi, Latest Edn.
3. Indian Institute of Bankers, Mumbai , Commercial Banking Volume I, II and III.

# Paper 2.2: MANAGEMENT PRACTICE

**UNIT I**

Importance of Management – Definition of Management – Management Functions – Roles of a Manager – Managerial Skills – Management and Administration – Evolution of Management – Early Management Approaches: Scientific Management – Administrative Management – Human Relations Movement – Modern Management Approaches: Behavioral Approach – Quantitative Approach – Systems Approach – Contingency Approach.

**UNIT II**

Planning: Nature – Importance – Types of Plans: Objectives – Strategies – Standing Plans – Policies – Procedures – Methods – Rules – Single Use Plans – Programmes – Budgets – Performance Budgeting. Planning in Banks: Deposit Planning – Credit Planning – Profit Planning – Operational Planning – Steps in Planning – Limitations of Planning – Making Planning Effective – Decision Making: Decision – Types of Decisions – Rational Decision Making – Difficulties in Decision Making – Decision Making at branch level bank.

**UNIT III**

Organizing: Meaning – Formal and Informal Organizations – Process of Organising – Span of Management – Departmentalisation – Organization Structure: Tall Organization – Flat Organization. Organization in a Bank: Head Office Organization – Zonal/Regional Office Organization – Organizing a Bank Branch – Delegation: Meaning – Advantages – Barriers – Guidelines for effective delegation – Decentralisation: Meaning – Advantages – Determinants of decentralization.

**UNIT IV**

Staffing: Principles of Manpower Planning – Recruitment, Selection and Placement Practices in Indian Banks – Need for Training – Training Methods – Training Practices in Banks – Performance Evaluation: Purpose – Criteria – Methods. Job Rotation – Job Enlargement – Job Enrichment – Job Satisfaction.

**UNIT V**

Directing: Effective Direction – Motivation – Communication Process – Forms of Communication – Principles of Effective Communication. Functions of a Leader – Branch Manager as a leader.

**UNIT VI**

Controlling: Control Process – Need for Control – Control Techniques: Budgetary Control – Standard Costing – Responsibility Accounting – Financial Statements and Ratio Analysis – Internal and External Audit – Reports – PERT and CPM – Human Resources Accounting.

**REFERENCE BOOKS:**

1. P.C. Tripathi and P.N. Reddy, Principles of Management, Tata McGraw Hill Publishing Company Limited, New Delhi.

2. Dr. C.B. Gupta, Principles of Management for Bankers, Sultan Chand & Sons, New Delhi – 110 002.

3. Koontz, Harold and Cyril O'Donnell, Essentials of Management, Tata McGraw Hill Publishing Company Limited, New Delhi.

# Paper 2.3: BUSINESS STATISTICS

**UNIT I**

Meaning and scope of statistics with special reference to commercial problem.

Measures of Central Tendency: Arithmetic, Geometric and Harmonic Means – Median and Mode-Weighted Average – Characteristics of different averages.

**UNIT II**

Measures of Dispersion – The Range – The Interquartile Range – The Mean Deviation and The Standard Deviation.

**UNIT III**

Skewness: Different Measures of skewness (Karl Pearson's Bowley's and Kelly's Coefficient of Skewness).

**UNIT IV**

Correlation: Karl Pearson's Coefficient of Correlation – Spearman's Rank Correlation.

**UNIT V**

Interpolation: Newton's Method – Lagrange's Method.

**UNIT VI**

Index Number: Definition and Use – Cost of Living Index – Index Numbers of wholesale prices.

Time Series: Seasonal, Cyclical and Irregular fluctuations – Methods of eliminating their influence – Secular trend.

**REFERENCE BOOKS:**

1. D.N. Elhance, Fundamentals of Statistics.
2. S.P. Gupta, Statistics for Commerce Students
3. S.P. Gupta, Statistical Methods.

# Paper 2.4: COMMERCIAL LAW

**UNIT I**

Formation of a Contract – Essentials of a valid contact – Void – and Voidable Contracts – Capacity of Contract – Appropriation of Payments – Rule in Clayton's Case – Quasi Contract – Frustration of Contract – Novation of Contract – Breach of Contract. Indemnity and Guarantee – Bailment and Pledge – Agency.

**UNIT II**

Sale of Goods: Documents of title to goods – Formation of a Contract of Sale – Sale and Hire Purchase – Mercantile Agent – Sale and Agreement to Sell – Conditions and Warranties – Sale by description – Passing of title to goods – Duties of Buyer and Seller and Unpaid Vendor.

**UNIT III**

Partnership: Formation – Registration of Firms – Relationship between Partners – Minor as a Partner – Rights and Liabilities of a Partner – Individual debts of partner and partnership debts – Dissolution of Partnership.

**UNIT IV**

Companies Act: Kinds of Companies – Special Advantages of Establishing a business as a Company – Incorporating a Company – Memorandum and Articles of association – Manner of amending Memorandum and Articles – Powers of Directors and Limitations thereon – Meetings of Shareholders – Registration of Charges – Winding up and preferential payments – Doctrine of Indoor Management – Doctrine of Ultravires.

**UNIT V**

Indian Stamp Act: Reasons for variations in Stamp duty from State to State – Stamping of documents – Alteration of Stamped.

Document: Document executed outside India and brought into India and also document executed in one State and to be acted upon in another State in India – Effect of document not being duly stamped.

**UNIT VI**

Registration Act: Procedure for registration of documents – Priorities – Effect of Registration. Limitation: Rational behind prescribing period of limitation – Acknowledgement of debts and confirmation of balances – Part Payment – Time limit for filing suit in certain specific cases of special interest to bankers like recovery of monies, mortgages, sureties and guarantees.

**REFERENCE BOOKS:**
1. N.D. Kapoor, Mercantile Law
2. D.F. Mulla V.J. Mattoo, The Indian Contract Act
3. Pollock & Mulla, Sale of Goods and Partner-ship Act.
4. S.M. Shah, Lectures on Company Law

# Paper 2.5: FOREIGN EXCHANGE AND FINANCING OF FOREIGN TRADE

**UNIT I**

Foreign Trade: Meaning – Commercial terms used in the delivery of goods and for payments (Incoterms) – Balance of Trade – Balance of Payments; Components – Balance of payments disequilibrium – Correction of disequilibrium.

Documents used in foreign trade: Bill of exchange – Marine insurance policy – Invoices – Certificates and other documents – Transport documents: Bill of lading, Multimodal transport documents, Airway bill, Other transport documents.

**UNIT II**

Foreign exchange: Meaning – Administration of foreign exchange – Functions of the foreign exchange department of a bank – Foreign exchange market in India – Exchange Control: Objectives and methods – Exchange Control Regulations relating to exports and imports.

Exchange Arithmetics: Nostro and Vostrol Accounts: Spot and Forward Deals for the purchase and sale of Foreign currencies – Selection of buying and selling rates and Calculation of appropriate forward rates.

**UNIT III**

Export Financing: Packing Credit Advances, Advances against duty drawback, Other services to exporters – Post – Shipment finance: Purchase/Negotiation of export bills, Scrutiny of bills drawn under letter of credit, collection of export bills, Advance against bills under collection, and Consignment exports.

**UNIT IV**

Project exports: Definitions, Financing Project exports, Joint Ventures abroad and Export guarantees.

**UNIT V**

Export – Import Bank of India: Lending to Indian exporters, Lending to foreign governments and companies, Loans to commercial banks in India, non-lending services and Forfeiting.

Export Credit Guarantee Corporation of India Limited: Standard Policies, Specific Policies and Guarantees to banks.

**UNIT VI**

Import Financing: Import licenses – Letter of Credit: Mechanism and types – Opening of a letter of credit – Payment of import bills – Import trust receipt – Deferred payment imports – Foreign Currency loans.

**REFERENCE BOOKS:**
1. Francis Cherunilam, International Trade and Export Management
2. C. Jeevanandam, Foreign Exchange – Practice, Concepts and Control
3. Reserve Bank of India, Exchange control Manual – Vol. I & II
4. S.K. Verghese, Financing Foreign Trade

# Paper 3.1: PRACTICE AND LAW OF BANKING - II

**UNIT I**

Lending of money by banks: Principles of sound lending – forms of advances such as Cash credit, Overdraft, Loan, Purchase and Discounting of bills – borrower study.

**UNIT II**

Secured advances: Different types of securities viz., Government securities, Corporate securities, Life Insurance Policies. Goods, Document of Title to Goods, Real estate and Book debts, Modes of creating charges viz., Lien, Pledge, Hypothecation and Mortgage.

**UNIT III**

Guarantees: Definition – Essential features of a contract of guarantee – Liability of the surety – Rights of surety – Obligations of creditor towards surety Rights of creditor.

**UNIT IV**

Loan appraisal: Managerial appraisal, Technical appraisal, Commercial appraisal and Financial appraisal – Follow up and supervision – NPAs.

**UNIT V**

Documentation: Meaning – Documentation in respect of various types of borrowers and securities – Essential clauses – Indian Stamp Act – Limitation Act.

**UNIT VI**

Industrial Sickness: Definition – Causes – Rehabilitation of Sick units.

**REFERENCE BOOKS:**

1. Bedi H.L. and Hardikar V.K., Practical Banking Advances.
2. Kannan M.L., Banking law and Practice in India, Thacker & Co.
3. Commercial Banking 4 Volumes.

# Paper 3.2: MARKETING OF BANKING SERVICES

**UNIT I**

Marketing – Meaning – Importance of Marketing – Modern Marketing Concept – Features of the Modern Marketing Concept – Marketing and Selling Social Marketing – Demarketing – Remarketing.

**UNIT II**

Relevance of marketing to banking – Marketing environment for a banker – Marketing Mix of a banker – Marketing Plan:  Bank's business objectives, Marketing Audit, SWOT Analysis, Marketing Objectives and Marketing.

Market Segmentation – Bases – Marketing outlet for a banker – Suitable location for a bank branch – Branch Layout.

**UNIT III**

Product Mix: Product Line of a banker, New Product Development, Constraints on Product Development, Product Management, Non Fund Based Business.

**UNIT IV**

Price Mix: Meaning, Importance, Factors affecting price of a product, pricing objectives, Pricing Policies, Deregulation of Interest rates, Service Charges.

**UNIT V**

Promotion Mix: Meaning, Objectives, Methods, Factors affecting Promotion Mix of a Banker: Personal Promotional Efforts, Direct Marketing Public Relations, Societal Banking, Customers Meets, Customer Service, Advertising, Publicity – Good Promotional.

**UNIT VI**

Bank Marketing Personnel – Selection – Motivation – Training and Development.

**REFERENCE BOOKS:**

1.  Ramasamy and Namakumari, Marketing Management.
2.  Gupta and Rajan Nair, Marketing Management.
3.  Madhukar, Dynamics of Bank Marketing.
4.  Kenneth Andrew, The Bank Marketing Handbook.

# Paper 3.3: MANAGEMENT ACCOUNTING

**UNIT I**

Management accounting – Concept, functions, scope and limitations of management accounting, financial accounting Vs management accounting, functions of financial controller and his place in the organization.

**UNIT II**

Business Budgets and Budgetary Control – Objectives, advantages and limitations of budgets and budgetary control, essentials for effective budgeting, classifications of budgets – sales budget, production budget, purchases budget cash budget, flexible budget.

**UNIT III**

Capital budgeting – meaning an need of Capital budgeting, methods of ranking investment proposals – Payback period method. Discounted Cash Flow method, Average Rate of Return method, limitations of Capital budgeting.

**UNIT IV**

Marginal Costing and Break-even analysis – Concept, basic characteristics, advantages and limitations of marginal costing, meaning of break-even analysis, application of break-even analysis, limitations of break-even analysis.

**UNIT V**

Analysis and interpretation of financial statements – nature and limitations of financial statements, types of financial analysis, comparative financial statements, common size statement, trend percentages, Ratio analysis – nature, utility and limitations of ratio analysis, analysis for solvency, liquidity and profitability, fund flow analysis, Cash flow analysis.

**UNIT VI**

Reporting to Management – Objects and types of reports, general principles of reporting, use of reports of management.

**REFERENCE BOOKS:**

1. S.N. Maheswari, Principles of Management Accounting, Sultan Chand & Sons, New Delhi
2. Hingorani and Chawla, Management Accounting, Himalaya Publishing House
3. Murthy and Guruprasad, Management Accounting, Himalaya Publishing House
4. John N. Myer, Financial Statement Analysis.

# Paper 3.4: COMPUTERS AND BANKING

**UNIT I**

Introduction of Computers: What is a computer? Brief history of computers – Early computers – Generations of computers – Uses of computers.

**UNIT II**

Data representation: Simple computer system – Basic concepts of data processing – Binary number system – Octal and hexadecimal – Representation of non-numeric data.

**UNIT III**

Hardware: Anatomy of computers – CPU – Main memory – Peripheral controllers – Peripherals.

**UNIT IV**

Software: Need for software – What is software? Types of software – System software – Operating systems – language translators – Programming languages.

**UNIT V**

Computerisation in banks: Stand alone computer system – LAN – Local processing with batch updates – AIMs – Home banking – EFT – MICR.

**UNIT VI**

Inter branch reconciliation Security considerations – Accidental damage, power failures and malicious damage – Operational problems.

**REFERENCE BOOKS:**
1. Bajwa K.S., Bank Mechanization, Skylark Publications
2. Srivatsava, Computer Applications in Banks, BTC, RBI
3. Sanjay Soni and Vinayak Aggarwal, Computers and Banking Sultan Chand & Sons.

# Paper 3.5: DEVELOPMENT BANKING

**UNIT I**

Development Banking in India: Need – Evolution – Objectives – Industrial Finance Corporation of India (IFCI): Objectives – Functions – Forms of assistance.

**UNIT II**

Industrial Development Bank of India (IDBI): Objectives – Functions – Schemes of Direct Assistance: Project finance, Technical Development Fund and Venture Capital Fund – Schemes of indirect assistance: Refinance Schemes, Bills rediscounting, Facility and seed capital assistance – Technical Consultancy Organization (TCOs) – Fee based activities of the IDBI.

**UNIT III**

Industrial Credit and Investment Corporation of India (ICICI): Objectives – Functions.

Small Industries Development Bank of India (SIDBI): Functions – Forms of assistance – National Small Industries Corporation (NSIC): Functions – Forms of assistance.

**UNIT IV**

State Financial Corporations (SFCs): Objectives – Functions – Forms of Assistance – Export Import Bank of India (EXIM Bank): Functions – National Housing Bank (NHB): Objectives – Functions.

**UNIT V**

Unit Trust of India (UTI): Objectives – Resources – Activities of the Trust – Life Insurance Corporation of India (LIC) and General Insurance Corporation of India (GIC): Their role in industrial development.

**UNIT VI**

Credit Rating Agencies in India: Credit Rating Information Services of India Limited (CRISIL) – Investment Information and Credit Rating Agency of India Limited (ICRA) – Credit Analysis and Research Limited (CARE) – Their role.

**REFERENCE BOOKS:**

1. Institutional Framework for Industry – Vol. I & II – Vasant Desai, Himalaya Publishing House, Mumbai.
2. Development Banking in India, Vol. I & II – Vasant Desai, Himalaya Publishing House, Mumbai.
3. How to borrow from Financial and Banking Institutions?  Edited by: Ajay Marg, Deepak SK. Kochhar and SN. Sharma Nabhi Publications, New Delhi.
4. Annual Report of Development Banking Institutions.

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| Course | : | **Bachelor of Commerce (B.Com)** |

**Course** : **Bachelor of Commerce (B.Com)**
Mode : Distance Education
Duration : Three Years
Eligibility : Pass in Higher Secondary / 3 year Diploma
Lateral Entry to II Year : 3 Year Diploma in Modern Office Practise
Medium : English and Tamil

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | *Title* | *Total Marks* |
|---|---|---|
| **I YEAR** | | |
| 1.1 | Business Communication | 100 |
| 1.2 | Basic Financial Accounting | 100 |
| 1.3 | Principles of Management | 100 |
| 1.4 | Business Organisation | 100 |
| 1.5 | Business Environment | 100 |
| **II YEAR** | | |
| 2.1 | Managerial Economics | 100 |
| 2.2 | Commercial Law | 100 |
| 2.3 | Business Statistics | 100 |
| 2.4 | Advanced Accountancy | 100 |
| 2.5 | Elements of Marketing | 100 |
| **III YEAR** | | |
| 3.1 | Company Law | 100 |
| 3.2 | Auditing | 100 |
| 3.3 | Banking Theory, Law and Practice | 100 |
| 3.4 | Cost Accounting | 100 |
| 3.5 | Management Accounting | 100 |
| | **Total** | **1500** |

# Paper 1.1:  BUSINESS COMMUNICATION

*UNIT-I*

Structure of Business Letters: Layout  of business letter – Types of business letter – Enquiry,  Offers, Quotations and Orders.

**UNIT-II**

Trade references and status enquires – Confirmation and execution of orders – Refusal and cancellation of orders – Acknowledging receipts of goods and making payments.

**UNIT-III**

Complaints and settlements – Collection letters – Circular letters.

UNIT-IV

Agency  letters – Banking letters – Insurance letters.

**UNIT-V**

Drafting of Agenda and Minutes: Meaning – Types – Methods.

**UNIT-VI**

Reports: Types and preparation – Speech drafting – Occasions – Application for a situation.

**TEXT AND REFERENCE BOOKS:**

| | |
|---|---|
| 1. Bhal and Nagamiah | : Modern Business Correspondence |
| 2. Majumdar | : Commercial Correspondence |
| 3. Reddy & Appannaiah | : Essentials of Business Communication |
| 4. Rajendra Paul | : Business Correspondence. |

# Paper 1.2: BASIC FINANCIAL ACCOUNTING

## UNIT-I

Introduction: Need for accounting, definition, Advantages of Accounting, Methods of Accounting , the Journal, Transaction analysis of Journal entries, Ledger, Posting, Maintaining Purchase books, Trail balance – Meaning, definition, Methods of preparation, Final Accounts, Manufacturing Accounts, Trading profit and loss Accounts, Balance Sheet – Adjustments.

## UNIT-II

Bills of exchange and the treatment: Average due date ,Meaning, Uses: Determination of due date, Average due date for calculation of interest – Determination of due date.

## UNIT-III

Final accounts of non-trading concern:- Introduction, Final Accounts, Final accounts for non profit organization, Receipts and Payment accounts, Income and Expenditure Accounts, Balance sheet.

## UNIT-IV

Single Entry:- Meaning, definition, features, limitations, difference between double and single entry system.

## UNIT-V

Consignment: Meaning, Features of Consignment transaction, distinction between consignment and sale, Accounting treatment of consignment transactions – Joint Venture, meaning, features , difference between Joint venture and Partnership,. Joint Venture and Consignment.

## UNIT-VI

Self-balancing Legers: Introduction – Debtors ledger – Creditors ledger – General ledger – Procedure of self-balancing – Adjustment accounts – Journal entries of self balancing – Different methods of depreciation.

**TEXT AND REFERENCE BOOKS:**
1. Dr.M.A. Arulanandam & K.S. Raman     : Advanced Accountancy
2. M.C.Sukhla and T.S. Grewal            : Advanced Accountancy
3. Jain & Narang                         : Advanced Accounts
4. R.L. Gupta                            : Advanced Accounting

# Paper 1.3: PRINCIPLES OF MANAGEMENT

## UNIT-I

Management: Concepts – Nature – Importance – Approaches to modern management – Contributors to management sector.

## UNIT-II

Planning: Nature – Purpose and importance – Premises of planning – Types of plans – Steps in Planning: Decision-making – Types – Process – Emotionality Vs Rationality in decision-making.

## UNIT-III

Organising: Principles and process of organisation – Types – Structure – Centralisation Vs Decentralisatoin – Departmentalisation – Span of management – Delegation – Authority – Responsibility – Accountability.

## UNIT-IV

Staffing: Man power planning – Job analysis – Selection technique – Analysis – Planning and implementation.

## UNIT-V

Directing: Principles – Elements – Motivation – Maslow, Herzberg, Vroom models – Communication process – Forms – Barriers – Overcoming barriers – Leadership: Managerial grid – Styles.

## UNIT-VI

Co-ordination: Meaning – Importance – Types – Control: Meaning – Need for Control – Control Process – Control Techniques.

**TEXT AND REFERENCE BOOKS :**

1. Essentials of Management     : L.N. Prasad
2. Essentials of Management     : Reddy & Appanniah
3. Essentials of Management     : Lallan Prasad
4. Essentials of Management     : Koontz & O' Donnel

## Paper 1.4:  BUSINESS ORGANISATION

**UNIT-I**

Business Organisation:  Meaning – Scope – Types – Sole Trader – Partnership – Company – Cooperatives – Advantages and Disadvantages.

UNIT-II

Location and size of business units – Concept of optimum firm – Factors governing the size of an optimum business unit.

UNIT-III

Large scale and Small scale business units – Merits and limitations.

UNIT-IV

Scientific Management: Meaning – Principles – Criticism – Rationalisation: Meaning – Advantages and disadvantages – Difference between Scientific Management and Rationalisation.

UNIT-V

Business Combinations:  Meaning - Significance – Forms – Merits and limitations.

UNIT-VI

State and Industry: Industrial Policy of India – Public Enterprises: Importance – Forms – Functions.

**TEXT AND REFERENCE BOOKS:**
1. Bhushan, 'Business Organisation and Management'.
2. Shukla, 'Business Organisation and Management'.
3. Chatterjee, 'Modern Business'.
4. Davar, 'Business Organisation and Industrial Management'.
5. Bhose, 'Business Organisation'.

## Paper 1.5: BUSINESS ENVIRONMENT

**UNIT-I**

Business Environment: Concept − Significance − Factors − Environmental influence on business.

UNIT-II

Social and Cultural Environment: Demographic trend − Indian social structure − Caste and communal systems − Interplay of various systems − Impact on business.

UNIT-III

Political Environment: Directive Principles of State Policy − Centre-State relations − Impact of political environment on business.

UNIT-IV

Economic Environment: Sectors of economy and their significance − Agriculture, industry − Service − Multinational Corporations: Meaning − Importance − Advantages − Weakness.

UNIT-V

Technological Environment: Choice of technology − Problems in selecting appropriate technology − Importance to business.

UNIT-VI

Social Responsibility: Meaning − Importance − Responsibility towards various interest groups.

**TEXT AND REFERENCE BOOKS:**
1. Francis Cherunilam, 'Business Environment'.
2. Aswathappa K, 'Essentials of Business Environment'.
3. Garg V K, 'Economic Environment of Business'.
4. Sherlekar S A, 'Modern Business Organisation and Management'.

## Paper 2.1:  MANAGERIAL ECONOMICS

**UNIT-I**

Managerial Economics:  Concept – Nature – Scope – Functions – Concepts of scarcity – Marginalism – Equi marginalism.

UNIT-II

Opportunity costs – Time perspective – Risk and uncertainty.

UNIT-III

Demand Function: Concept – Types of demand – Determinants – Cardinal and ordinal utility analysis.

UNIT-IV

Demand Curves – Demand elasticity – Demand forecasting.

UNIT-V

Production Function:  Cost concepts – Total, average and marginal cost analysis – Returns to scale – Cobb-Douglas production function.

UNIT-VI

Price-output Function:  Output and price decisions under perfect competition, monopolistic competition, monopoly and duopolistic conditions – Pricing strategies.

**TEXT AND REFERENCE BOOKS:**

5.  Mehta P L, 'Managerial Economics'.
6.  Adhikary M, 'Managerial Economics'.
7.  Gupta M & Samuel Paul, 'Managerial Economics'.
8.  Chopra O P, 'Managerial Economics'.

# Paper 2.2: COMMERCIAL LAW

UNIT-I

**Indian Contract Act 1872:** Meaning and essentials of a valid contract – Formation of contract – Performance of contract – Termination and discharge of contract – Remedies for beach of contract – Quasi contract.

UNIT-II

**Special Contracts:** Indemnity and guarantee – Bailment – Agency.

UNIT-III

**Sale of goods act.1930:** Contract of sale – Conditions and warranties - Transfer of property – Performance of the contract of sale. Rights of an unpaid seller.

UNIT-IV

**Negotiable Instruments Act,1881:** Negotiable instruments – parties to a negotiable instrument – Material alteration – crossing of cheques – Endorsement – Payment and collection of cheques.

UNIT-V

**Indian Partnership Act ,1932:** Meaning and test of partnership – Registration of firms  - Relations of partners – Dissolution of firms.

**Arbitration Act, 1940:** Arbitration – arbitration without intervention of court – Arbitration in suits.

**UNIT-VI**

**Carriage of Goods:** Classification of common carriers – rights, duties and liabilities of common carrier – Carriage by rail – Contract of affreightment – Charter party – Bill of lading – Carriage by air – Documents relating thereto – Liability of the air carrier.

**Contract of insurance** - Basic elements, kinds of insurance – Fire insurance – Marine insurance.

**TEXT AND REFERENCE BOOKS:**
    1. Kapoor, N.D.            : Elements of Mercantile law
    2. Sen and Mitra           : Commercial Law
    3. Shukla,M.C.            : Mercantile law
    4. Relevant bare acts.

# Paper 2.3: BUSINESS STATISTICS

**UNIT-I**

Business Statistics:  Meaning – Scope.

UNIT-II

Measures of Central Tendency:  The arithmetic, geometric and harmony means – Median and mode – Weighted average – Characteristics of different averages.

UNIT-III

Measures of Dispersion: The Range – The Inner Quartilerange – The Mean deviation and the Standard deviation.

UNIT-IV

Skewness: Different measures of skewness – Correlation (Linear Correlation only) – Interpolation.

UNIT-V

Index Number:  Definition – Use of the index number – Cost of living index – Index numbers of wholesale prices.

UNIT-VI

Time Series:  Seasonal cyclical and irregular fluctuations – Methods of eliminating their influence – Secular trend.

**TEXT AND REFERENCE BOOKS:**

4.  Elhance D N, 'Fundamentals of Statistics'.
5.  Gupta S P, 'Statistics for Commerce Students'.
6.  Gupta S P, 'Statistics Methods'.

# Paper 2.4: ADVANCED ACCOUNTANCY

## UNIT-I

Partnership Accounts: Partner's admission – Retirement of a partner – Death of a partner.

## UNIT-II

Joint life policy – Amalgamation of firms – Dissolution of a partnership firm – Insolvency of a partner – Garner Vs. Murray – Piecemeal distribution – Sale to a company.

## UNIT-III

Company Accounts: Issue of shares – Issue of redeemable preference shares – Forfeiture and re-issue of shares – Redemption on redeemable preference shares – Issue of debentures – Redemption of debentures.

## UNIT-IV

Company final accounts – Profits prior to incorporation.

## UNIT-V

Amalgamation – Absorption – Reconstruction.

## UNIT-VI

Department and Branch accounts – Hire purchase and instalment systems – Royalties – Fire claims.

## TEXT AND REFERENCE BOOKS:

1. M.A. Arulanandam & K.S. Raman     : Advanced Accounting
2. M.C.Shukla & T.S. Grewal     : Advanced Accounting
3. R.L.Gupta     : Advanced Accounting
4. Jain & Narang     : Advanced Accounting

# Paper 2.5: ELEMENTS OF MARKETING

## UNIT-I

Modern Marketing: Concept – Approaches to study of marketing – Features of Industrial , Consumer and Services Marketing.

## UNIT-II

Consumer Behaviour: Meaning – Their relevance to marketing – Market segmentation strategies – Marketing mix.

## UNIT-III

Product – Meaning – Product mix – Product planning and implementation – PLC – Branding – Packaging.

## UNIT-IV

Pricing: Policies and methods – New product pricing – Government control on pricing.

## UNIT-V

Physical Distribution: Meaning – Importance – Types.

## UNIT-VI

Promotion Mix: Advertisement: Meaning – Objectives – Copy – Media – Budget - Evaluation – Sales Promotion: Objectives – Types and Importance – Personal Selling: Process – Importance.

**TEXT AND REFERENCE BOOKS:**

1. Fundamentals of marketing          : William J. Stanton
2. Marketing management              : C.B. Mamoria & Satish Mamoria
3. Marketing                         : J.C. Gandhi
4. Marketing                         : Rajan Nair
5. Essentials of marketing management : S.A. Sherlekar

# Paper 3.1:  COMPANY LAW

## UNIT-I

Company: Meaning – Characteristics – Types – Corporate personality – Corporate veil – Lifting of corporate veil – Incorporate – Documents to be filed – Preliminary contracts – Promoter – Duties.

## UNIT-II

Memorandum of Association: Meaning – Purpose – Contents – Doctrine of ultra vires – Effects – Alteration – Articles of Association: Purpose – Contents – Alteration – Doctrine of Constructive notice and Indoor management – Prospectus: Definition – Registration – Contents – Misrepresentation in prospectus – Consequences.

## UNIT-III

Share Capital and Membership of Company: Share – Meaning – Kinds – Allotment of shares – Forfeiture and reissue of shares – Transfer and transmission of shares – Alteration of share capital.

Membership: Types – Methods of creation of membership.

## UNIT-IV

Company Management:  Director: Meaning – Appointment – Qualification – Disqualification – Vacation – Removal – Powers, duties and liabilities.

## UNIT-V

Company Meetings: Requisites of valid meeting – Types – Statutory, AGM, EGM, Board Meetings – Minutes – Chairman: Duties – Resolutions – Kinds of resolutions.

## UNIT-VI

Winding up:  Meaning – Modes of winding up – Compulsory winding up – Voluntary winding up – Winding up subject to the supervision of the Court – Liquidation – Powers and duties.

**TEXT AND REFERENCE BOOKS:**
1. Kapoor N D, 'Company Law'.
2. Sen Gupta B K, 'Company Law', Eastern Law Book House.
3. Shah S M, 'Lectures on Company Law', N.M. Tripathi P. Ltd., Mumbai.

# Paper 3.2:  AUDITING

**UNIT-I**

Definition – Meaning – Objectives of Auditing – Errors – Frauds – Continuous audit and periodical audit – Audit programmes.

**UNIT-II**

Internal check and  internal control – Definition – Schemes of internal check for wage payments, petty cash, purchases and sales – Vouching of cash transaction – Vouching of trade transaction.

UNIT-III

Verification and valuation of stock – Methods of stock valuation – Verification and valuation of assets and liabilities.

**UNIT-IV**

Audit of limited companies – Qualifications, appointment and removal of auditors – Rights and powers – Share capital audit – Share transfer audit.

**UNIT-V**

Divisible profits – Capital profits and dividend – Depreciation of fixed assets and dividend – Dividends – Interim and final.

**UNIT-VI**

Investigation – Distinction between investigation and audit – Investigation on behalf of a lender of money, incoming partner – Investor in shares – Investigation under the companies act.


**TEXT AND REFERENCE BOOKS:**
1. Tandon                 :  Practical Auditing

# Paper 3.3: BANKING – THEORY, LAW AND PRACTICE

**UNIT-I**

Evolution of banks – Commercial banking – Mixed banking functions of commercial banks - Their balance sheet – Credit creation by commercial banks - Central Banks – Its functions – Credit control measures of the central banks.

**UNIT-II**

Unit banking – Branch banking – Indian commercial banks. Nationalisation of major commercial banks – Objects – Place of private sector banks.

**UNIT-III**

Indian money market – Different components – Backwardness of the Indian money market – Role of commercial banks in the Indian money market.

**UNIT-IV**

Law and practice – Banker and customer – General and special relationship – Banks as borrowers – Precautions to be taken before opening accounts – Legal significance of fixed deposit receipts – cheque – its requisites – Paying banker - Collecting banker – Pass book – Closing of accounts – Loans and advances – Legal formalities and precautions.

**UNIT-V**

Crossing of cheques – Endorsements – holder in Due course – Payment in due course and special features of negotiable instruments.

**TEXT AND REFERENCE BOOKS:**

1. Basu                  : Theory and Practice of Development Banking
2. Muranjan S.K.         : Modern Banking in India
3. Reddy & Appanniah     : Banking Theory and Practice
4. Natarajan & Gordon    : Banking Theory and Practice

# Paper 3.4 COST ACCOUNTING

**UNIT-I**

Cost accounting – Elements of cost – Cost concepts.

**UNIT-II**

Accounting and control of material cost.

UNIT-III

Labour – Wage payment and incentives – Labour cost control – Labour turnover.

**UNIT-IV**

Process costing – Process losses – Inter-process profits.

**UNIT-V**

Standard costing – Variance analysis.

**UNIT-VI**

Cost ledgers – Reconciliation of cost and financial profits – Integral accounting.

**Note:** Theory 40%; Problems 60%.

**TEXT AND REFERENCE BOOKS:**

1. Advanced cost accounting : Jain and Narang.
2. Cost accounting : N.K. Prasad
3. Cost accounting : S.P.Lengar
4. Cost accounting : Nigam and Sharma
5. Cost accounting : P.V. Ratnam

# Paper 3.5: MANAGEMENT ACCOUNTING

**UNIT-I**

Management Accounting – Scope And Importance – Management Accounting Vs Financial Accounting And Cost Accounting.

UNIT-II

Ratio Analysis.

**UNIT-III**

Fund Flow Analysis – Cash Flow Analysis.

**UNIT-IV**

Budgeting And Budgetary Control – Sales Budget – Cash Budget – Operating Budget – Master Budget – Flexible Budget – Zero Base Budgeting – Performance Budgeting – Programme Budgeting.

**UNIT-V**

Marginal Costing – Break Even Analysis – Differential Costing.

**UNIT-VI**

Capital Budgeting – Nature And Significance – Methods of Evaluation of Alternative Capital Expenditure Programme.

**Note :** Atleast 60% of the Total Marks be Allotted for problems.

**TEXT AND REFERENCE BOOKS:**

1. Maheswari S N, 'Management Accounting and Financial Control'.
2. Man Mohan and Goyal, 'Management Accounting'.
3. Hingorani and Ramanathan, 'Management Accounting'.
4. . Katyal, 'Management Accounting'.

ఆక్ట

| Course | : | **B.Com (Computer Applications)** |
|--------|---|-----------------------------------|
| Mode | : | Distance Education |
| Duration | : | Three Years |
| Eligibility | : | Pass in Higher Secondary / 3 year Diploma |
| Lateral Entry to II Year | : | 3 Year Diploma in Modern Office Practise / Computer / EEE |
| Medium | : | English only |

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|--------------|-------|-------------|
| **I YEAR** | | |
| 1.1 | Business Communication | 100 |
| 1.2 | Basic Financial Accounting | 100 |
| 1.3 | Principles of Management | 100 |
| 1.4 | Office Automation | 100 |
| 1.5 | Lab – I: MS-Office | 100 |
| **II YEAR** | | |
| 2.1 | Elements of Marketing | 100 |
| 2.2 | Commercial Law | 100 |
| 2.3 | Banking Theory, Law and Practice | 100 |
| 2.4 | C Programming | 100 |
| 2.5 | Lab – II: C Programming | 100 |
| **III YEAR** | | |
| 3.1 | Advanced Accountancy | 100 |
| 3.2 | Auditing | 100 |
| 3.3 | Cost Accounting | 100 |
| 3.4 | Web Designing and its Applications | 100 |
| 3.5 | Lab – III: Accounting Package | 100 |
| | **Total** | **1500** |

# Paper 1.1:  BUSINESS COMMUNICATION

*UNIT-I*

Structure of Business Letters: Layout  of business letter – Types of business letter – Enquiry,  Offers, Quotations and Orders.

**UNIT-II**

Trade references and status enquires – Confirmation and execution of orders – Refusal and cancellation of orders – Acknowledging receipts of goods and making payments.

**UNIT-III**

Complaints and settlements – Collection letters – Circular letters.

UNIT-IV

Agency  letters – Banking letters – Insurance letters.

**UNIT-V**

Drafting of Agenda and Minutes: Meaning – Types – Methods.

**UNIT-VI**

Reports: Types and preparation – Speech drafting – Occasions – Application for a situation.

**TEXT AND REFERENCE BOOKS:**

1. Bhal and Nagamiah   : Modern Business Correspondence
2. Majumdar      : Commercial Correspondence
3. Reddy & Appannaiah   : Essentials of Business Communication
4. Rajendra Paul     : Business Correspondence.

# Paper 1.2: BASIC FINANCIAL ACCOUNTING

## UNIT-I

Introduction :- Need for accounting, definition, Advantages of Accounting , Methods of Accounting , the Journal, Transaction analysis of Journal entries, Ledger, Posting, Maintaining Purchase books, Trail balance – Meaning, definition, Methods of preparation, Final Accounts, Manufacturing Accounts, Trading profit and loss Accounts, Balance Sheet – Adjustments.

## UNIT-II

Bills of exchange and the treatment: Average due date ,Meaning, Uses: Determination of due date, Average due date for calculation of interest – Determination of due date.

## UNIT-III

Final accounts of non-trading concern:- Introduction, Final Accounts, Final accounts for non profit organization, Receipts and Payment accounts, Income and Expenditure Accounts, Balance sheet.

## **UNIT-IV**

Single Entry:- Meaning, definition, features, limitations, difference between double and single entry system.

## UNIT-V

Consignment ,Meaning, Features of Consignment transaction, distinction between consignment and sale, Accounting treatment of consignment transactions – Joint Venture, meaning,  features , difference between Joint venture and Partnership,. Joint Venture and Consignment.

## UNIT-VI

Self-balancing Legers:  Introduction – Debtors ledger – Creditors ledger – General ledger – Procedure of self-balancing – Adjustment accounts – Journal entries of self balancing – Different methods of depreciation.

## TEXT AND REFERENCE BOOKS:

1. Dr.M.A. Arulanandam & K.S. Raman : Advanced Accountancy
2. M.C.Sukhla and T.S. Grewal : Advanced Accountancy
3. Jain & Narang : Advanced Accounts
4. R.L. Gupta : Advanced Accounting

# Paper 1.3:  PRINCIPLES OF MANAGEMENT

## UNIT-I

Management: Concepts – Nature – Importance – Approaches to modern management – Contributors to management sector.

## UNIT-II

Planning: Nature – Purpose and importance – Premises of planning – Types of plans – Steps in Planning: Decision-making – Types – Process – Emotionality Vs Rationality in decision-making.

## UNIT-III

Organising: Principles and process of organisation – Types – Structure – Centralisation Vs Decentralisatoin – Departmentalisation – Span of management – Delegation – Authority – Responsibility – Accountability.

## UNIT-IV

Staffing:  Man power planning – Job analysis – Selection technique – Analysis – Planning and implementation.

## UNIT-V

Directing: Principles – Elements – Motivation – Maslow, Herzberg, Vroom models – Communication process – Forms – Barriers – Overcoming barriers – Leadership: Managerial grid – Styles.

## UNIT-VI

Co-ordination: Meaning – Importance – Types – Control: Meaning – Need for Control – Control Process – Control Techniques.


**TEXT AND REFERENCE BOOKS :**

1. Essentials of Management   : L.N. Prasad
2. Essentials of Management   : Reddy & Appanniah
3. Essentials of Management   : Lallan Prasad
4. Essentials of Management   : Koontz & O' Donnel

# Paper 1.4:  OFFICE AUTOMATION

**UNIT-I**

Introduction -   Working with Windows -  Working with Office Programs -   Title Bar, Status Bar,  Menu bar and Tool bars - Using the Office Assistant -  Using the Help window - Creating a Shortcut icon -  Starting a Program and Opening a Document - Saving and Naming the Document - Using Favourite Folders -  Closing, Deleting and Undeleting a Document - Renaming, Copying and Moving a Document -  Finding the Document.

UNIT-II

WORD - Working with Word Documents - Moving, Correcting and Inserting Text - Printing a Document - Editing a Document - Selecting and Copying Text - Formatting - Changing Margins, Line spacing, Text Alignment, Font and Font size - Indenting - Inserting Page Numbers and Breaks - Using Tables and Graphics - Creating Tables - Auto formatting Table Text - Inserting, Moving and Resizing pictures - Spell Checking.

UNIT-III

EXCEL - Building a Worksheet - Selecting worksheet items - Using Autofill - Adding and Removing rows and columns - Copying and Moving information - Creating and Copying formulas - Naming ranges - Using Functions - Improving the appearance of worksheet - Changing Column Width - Formatting Text and Numbers - Using Autoformat - Spell Checking - Using Chart Wizard - Creating, Enhancing and Printing a Chart.

UNIT-IV

ACCESS -  Creating a New Database -  Creating and Saving a table -  Primary key creation -  Adding, Editing and Deleting fields -  Changing the view and Moving fields -  Data Entry and Editing -  Adding, Inserting and Deleting Records -  Adjusting Column widths - Hiding Columns -  Finding Records -  Sorting Records -  Creating, Saving and Editing a Query - Forms - Autoform - Using Report Wizard -  Creating and Printing Reports.

UNIT-V

POWER POINT: Creating a PowerPoint Presentation - Integrating office applications - Merging  an  access table with a word letter - Creating an access report  from  an  Excel List - Creating Powerpoint Presentation  from a word outline - Creating a word handout from a Powerpoint Presentation - Creating and printing Binders.

UNIT-VI

MS OUTLOOK: Starting outlook - Outlook window – Using menus and  dialog boxes - Exiting outlook.

**TEXT AND REFERENCE BOOKS:**

1.  Laura Acklen et al, Microsoft Office 97 Professional Essentials, Prentice-Hall India (1998).
2.  Shelley O'Hara, Discover Office 97, Comdex Computer Publishing (1997)

# Paper 2.1:  ELEMENTS OF MARKETING

## UNIT-I

Modern Marketing: Concept – Approaches to study of marketing – Features of Industrial , Consumer and Services Marketing.

## UNIT-II

Consumer Behaviour: Meaning – Their relevance to marketing – Market segmentation strategies – Marketing mix.

## UNIT-III

Product – Meaning – Product mix – Product planning and implementation – PLC – Branding – Packaging.

## UNIT-IV

Pricing:  Policies and methods – New product pricing – Government control on pricing.

## UNIT-V

Physical Distribution: Meaning – Importance – Types.

## UNIT-VI

Promotion Mix: Advertisement: Meaning – Objectives – Copy – Media – Budget - Evaluation – Sales Promotion: Objectives – Types and Importance – Personal Selling: Process – Importance.

**TEXT AND REFERENCE BOOKS:**

1. Fundamentals of marketing       : William J. Stanton
2. Marketing management       : C.B. Mamoria & Satish Mamoria
3. Marketing       : J.C. Gandhi
4. Marketing       : Rajan Nair
5. Essentials of marketing management       : S.A. Sherlekar

# Paper 2.2: COMMERCIAL LAW

UNIT-I

**Indian Contract Act 1872:** Meaning and essentials of a valid contract – Formation of contract – Performance of contract – Termination and discharge of contract – Remedies for beach of contract – Quasi contract.

UNIT-II

**Special Contracts:** Indemnity and guarantee – Bailment – Agency.

UNIT-III

**Sale of goods act.1930:** Contract of sale – Conditions and warranties - Transfer of property – Performance of the contract of sale. Rights of an unpaid seller.

UNIT-IV

**Negotiable Instruments Act,1881:** Negotiable instruments – parties to a negotiable instrument – Material alteration – crossing of cheques – Endorsement – Payment and collection of cheques.

UNIT-V

**Indian Partnership Act ,1932:** Meaning and test of partnership – Registration of firms - Relations of partners – Dissolution of firms.

**Arbitration Act, 1940:** Arbitration – arbitration without intervention of court – Arbitration in suits.

**UNIT-VI**

**Carriage of Goods:** Classification of common carriers – rights, duties and liabilities of common carrier – Carriage by rail – Contract of affreightment – Charter party – Bill of lading – Carriage by air – Documents relating thereto – Liability of the air carrier.

**Contract of insurance** - Basic elements, kinds of insurance – Fire insurance – Marine insurance.

**TEXT AND REFERENCE BOOKS:**
1. Kapoor, N.D.          : Elements of Mercantile law
2. Sen and Mitra          : Commercial Law
3. Shukla,M.C.          : Mercantile law
4. Relevant bare acts.

# Paper 2.3:  BANKING – THEORY, LAW AND PRACTICE

## UNIT-I

Evolution of banks – Commercial banking – Mixed banking functions of commercial banks -  Their balance sheet – Credit creation by commercial banks  - Central Banks – Its functions – Credit control measures of the central banks.

## UNIT-II

Unit banking – Branch banking – Indian commercial banks. Nationalisation of major commercial banks – Objects – Place of private sector banks.

## UNIT-III

Indian money market – Different components – Backwardness of the Indian money market – Role of commercial banks in the Indian money market.

## UNIT-IV

Law and practice – Banker and customer – General and special relationship – Banks as borrowers – Precautions to be taken before opening accounts – Legal significance of  fixed deposit receipts.

## UNIT-V

Cheque – its requisites – Paying banker  - Collecting banker – Pass book – Closing of accounts – Loans and advances – Legal formalities and precautions.

## UNIT-VI

Crossing of cheques – Endorsements – holder in Due course – Payment in due course and special features of negotiable instruments.

## TEXT AND REFERENCE BOOKS:

1. Basu               : Theory and Practice of Development Banking
2. Muranjan S.K.      : Modern Banking in India
3. Reddy & Appanniah  : Banking Theory and Practice
4. Natarajan & Gordon : Banking Theory and Practice

# Paper 2.4: C PROGRAMMING

**UNIT-I**

Program Development: Top down approach - Modularity - Stepwise refinement - Pseudocode selection - iteration - control structures - Loops - Structured programming - procedures and recursion - Exchanging the values - Factoring methods - Array techniques - Basics of sorting - Text processing .

**UNIT-II**

Overview of C data types, operators and expressions: History of C ANSI standard - Anatomy of C program - Coding style - Sample C programs - Executing simple programs - Character set - Key words and Identifiers - Constants ,variables and data types - Symbolic constants - Operators - Expressions - Evaluation of expressions- Precedence of operators - Type conversions in expressions -Associativity and precedence - some computational problems.

**UNIT-III**

I/O operations ,control flow and arrays : Reading and writing a character-Formatted input and output - Conditional branching - Switch statement - Looping - Nested loops - The Break and continue statements - The Goto statement - Infinite loops - Declaring arrays - Storing arrays in memory - Initialising arrays - Strings -Two dimensional arrays - Multidimensional arrays.

**UNIT-IV**

Functions, pointers, storage classes, structures and unions: Need for user defined functions - The form of C functions - Return values and their types - calling a function - Category of functions - Recursion - Functions - Functions with arrays - The scope and lifetime of variables in functions.

**UNIT-V**

Understanding pointers - pointer arithmetic and expressions - Pointer and arrays - Array of pointers - pointers to pointers - Passing pointers as arguments to functions - Different storage classes - extern, static, auto, register - Structure - Definition - Structures within structures - Structures and functions - Unions - Dynamic storage allocation - Linked allocations.

**UNIT-VI**

File management and preprocessors : Streams, Buffering, Error handling, Opening and closing a file, Reading and writing data, Selecting an I/O method - Random access - Macro substitution – Conditional substitution - Conditional compilation - Include facility, line control.

**TEXT AND REFERENCE BOOKS :**

14. Byron S Gottfried, "Programming with C", Schaums outline series, McGraw Hill Book company, 1996.
15. B.W.Kerningham and D.Ritchie, "The C Programming Language", PHI, 1988.
16. D.Ravichandran, "Programming in ANSI C", New Age International(P) ltd, 1989.
17. E.Balagurusamy, "Programming in ANSI C", TMH, 1995.

# Paper 3.1: ADVANCED ACCOUNTANCY

## UNIT-I

Partnership Accounts: Partner's admission – Retirement of a partner – Death of a partner.

## UNIT-II

Joint life policy – Amalgamation of firms – Dissolution of a partnership firm – Insolvency of a partner – Garner Vs. Murray – Piecemeal distribution – Sale to a company.

## UNIT-III

Company Accounts: Issue of shares – Issue of redeemable preference shares – Forfeiture and re-issue of shares – Redemption on redeemable preference shares – Issue of debentures – Redemption of debentures.

## UNIT-IV

Company final accounts – Profits prior to incorporation.

## UNIT-V

Amalgamation – Absorption – Reconstruction.

## UNIT-VI

Department and Branch accounts – Hire purchase and instalment systems – Royalties – Fire claims.

## TEXT AND REFERENCE BOOKS:

| 1. M.A. Arulanandam & K.S. Raman | : Advanced Accounting |
| 2. M.C.Shukla & T.S. Grewal | : Advanced Accounting |
| 3. R.L.Gupta | : Advanced Accounting |
| 4. Jain & Narang | : Advanced Accounting |

# Paper 3.2: AUDITING

**UNIT-I**

Definition – Meaning – Objectives of Auditing – Errors – Frauds – Continuous audit and periodical audit – Audit programmes.

**UNIT-II**

Internal check and internal control – Definition – Schemes of internal check for wage payments, petty cash, purchases and sales – Vouching of cash transaction – Vouching of trade transaction.

UNIT-III

Verification and valuation of stock – Methods of stock valuation – Verification and valuation of assets and liabilities.

**UNIT-IV**

Audit of limited companies – Qualifications, appointment and removal of auditors – Rights and powers – Share capital audit – Share transfer audit.

**UNIT-V**

Divisible profits – Capital profits and dividend – Depreciation of fixed assets and dividend – Dividends – Interim and final.

**UNIT-VI**

Investigation – Distinction between investigation and audit – Investigation on behalf of a lender of money, incoming partner – Investor in shares – Investigation under the companies act.


**TEXT AND REFERENCE BOOKS:**
1. Tandon                 :   Practical Auditing

# Paper 3.3 COST ACCOUNTING

**UNIT-I**

Cost accounting – Elements of cost – Cost concepts.

**UNIT-II**

Accounting and control of material cost.

UNIT-III

Labour – Wage payment and incentives – Labour cost control – Labour turnover.

**UNIT-IV**

Process costing – Process losses – Inter-process profits.

**UNIT-V**

Standard costing – Variance analysis.

**UNIT-VI**

Cost ledgers – Reconciliation of cost and financial profits – Integral accounting.

**Note:** Theory 40%; Problems 60%.


**TEXT AND REFERENCE BOOKS:**

1. Advanced cost accounting     : Jain and Narang.
2. Cost accounting              : N.K. Prasad
3. Cost accounting              : S.P.Lengar
4. Cost accounting              : Nigam and Sharma
5. Cost accounting              : P.V. Ratnam

## *Paper 3.4: WEB DESIGNING AND ITS APPLICATIONS*

**UNIT-I**

Introduction to internet – Types of browsers – Browsing through the web – creating E-mail id-connecting to the dial-up network – Interconnecting Lan and internet using proxy server – URL-FTP basic concepts.

**UNIT-II**

Introducing Mark Up Languages – HTTP – An Introduction – Introduction to HTML – Html basic Tags – Images, Links – Text formatting Tags – Ordered, Unordered & Definition List.

**UNIT-III**

Creating tables – Frames – Forms – Adding External linked objects – Dynamic web page – An introduction – Introducing cascading style sheets.

**UNIT-IV**

MS Frontpage 2000-Features – Front Page Toolbar – Creating and editing web pages using frontpage

UNIT-V

Explorer and Editor – Adding links, images to web pages & Modify image properties – Formatting text – Build a table creating links, images – Frames.

**UNIT-VI**

Form features in front page – Working with themes – Adding page element – Graphics and multimedia – Usage of templates – Creating dynamic pages using CSS.

**TEXT AND REFERENCE BOOKS:**

1. C. Xavier, "World Wide Web Design with HTML" T.M.H, 2000.
2. Neil Randall, "The Internet", Second Edition, PHI, 1996.
3. Janifer Niederst, "Web Design in a Nutshell", O reilly Publications, 1999.

| Course | : | **Bachelor of Library and Information Science(BLIS)** |
|--------|---|---|
| Mode | : | Distance Education |
| Duration | : | One year |
| Eligibility | : | Any degree from a recognised University |
| Medium | : | English only |

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|:---:|---|:---:|
| 1 | Library and Society | 100 |
| 2 | Information Sources and Services | 100 |
| 3 | Information Processing-I: Classification (Theory) | 100 |
| 4 | Information Processing-II: Cataloguing and Indexing (Theory) | 100 |
| 5 | Information Technology | 100 |
| 6 | Library Administration and Management | 100 |
| 7 | Information Processing-III: Classification (Practice) | 100 |
| 8 | Information Processing-IV: Cataloguing (Practice) | 100 |
| | **Total** | **800** |

## Paper 1: LIBRARY & SOCIETY

### UNIT I

Libraries and Information Centres – Definition – Modern concept – Importance – The impact of Social, Cultural, Educational, Economic and Technological changes on library & information services & Vice-versa – Five Laws of Library Science – Their relevance – Library extension activities – Outreach programmes – Rural Development – Gender Equity – Environment protection.

### UNIT II

Historical development of Libraries in USA, UK(brief study) and India (detailed study) – Types of Libraries – National, Public, Academic, Special – Their functions – National Library of India – Functions.

### UNIT III

Library Legislation – Model State and Central Library Act – Tamilnadu Public Library Act, Andhra Public Library Act 1960 and Karnataka Public Library Act 1965 – Delivery of books and News papers Act 1954 – Copyright act.

### UNIT IV

Library Co-operation resource sharing – Definition, need and uses – Areas of Co-operation – Networking of Libraries – Types of Networks.

### UNIT V

Librarian and Librarianship – Qualities of good librarian – Professional associations.

### UNIT VI

Role of FID, IFLA, ILA, MALA – Library activities of UNESCO

**REFERENCE BOOKS:**

5. Chaturvedi D D, Academic Libraries (New Delhi: Anmol,1993)
6. Ekbote, Gopal Rao, Public Library System(Hydrabad: Ekbote Bros, 1987)
7. Jefferson G, Libraries & Society (Cambridge: James Clarke & Co., 1969)
8. Jefferson G, Libraries Co-operation (London: Library Deutsh, 1977)
9. Panda B D, Handbook of Public Library System, History of Library Development,(New Delhi:Anmol, 1992)
10. Ranganathan S R, Five Laws of Library Science, Public Library System, India, Srilanka, UK, USA, (Bombay: Asia Publishing House), Library Manual, (Bangalore: S.R.Endowment, 1988)
11. Rout R K, Library Legislation in India(New Delhi: Reliance, 1986)
12. Viswanathan C G, Public Library Operations and Services: A Short Manual (Lucknow Print House).

## Paper 2: INFORMATION SOURCES AND SERVICES

**UNIT I**

Information, Information explosion & information environment – Nature and characteristics of information – Information transfer – Means & methods – Formal & informal – Barriers to Communication.

**UNIT II**

Sources of information – Documentary – Non-documentary – Published and unpublished – Types of information sources – Primary, Secondary, Tertitary sources – Illustrations.

**UNIT III**

Categories of information sources – Encyclopedias – Dictionaries, Directories, Handbooks & Manuals – Biographical sources – Geographical sources – Bibliographies, Almanacs, Year Books – General evaluation of information sources – Authority scope, arrangement, treatment, etc – Abstracting and indexing periodicals.

**UNIT IV**

Information services – Reference service – Definition, need and types – Ready reference service – Long range reference service – User needs – User Education.

**UNIT V**

Documentation services – Current awareness service, SDI – Bibliographical services – Types of Bibliographies - INB and BNB – Planning, Compilation of Bibliography.

**UNIT VI**

Translation services – Need and importance – Functions of INSDOC, DESIDOC, SSDS, NASSDOC & British Library.

**REFERENCE BOOKS:**

1. Chhotey Lal, Information Sources in Science and Technology (Delhi: Bharati Pub, 1986)
2. Doyle, Lauren B, Information Retrieval & Processing (Los Angels: Meville Pub. Co. 1975)
3. Guha B, Documentation & Information: Systems, Techniques & Services (Calcutta: World Press, 1983)
4. Karz, William A, Introd to Reference Work Ed2(NewYork: McGraw-Hill, 1974)
5. Krishan Kumar, Reference Service Ed2(New Delhi: Vikas, 1980)
6. Renganathan, Documentation and Its Facets(Bombay: Asia, 1963), Library Manual Ed2(Bangalore: S.R. Endowment, 1988)
7. Sharma, JS & Grover, DR, Reference Service and Sources of Information (New Delhi: Ess Ess Publications, 1987).

# Paper 3: INFORMATION PROCESSING-ICLASSIFICATION(Theory)

## UNIT I

Need and Purpose of classification – Basic concepts Terminology – Knowledge classification – Universe of subjects – Development and modes of formation of subjects.

## UNIT II

Knowledge Classification and document classification – Physical arrangement of documents in open access libraries – Notation – Functions – Canons devices.

## UNIT III

Schemes of Library classification – Historical development – Lay-out and salient features of major schemes – DDC, UDC, CC – Enumerative and Analytico Synthetic schemes – General comparative study of DDC & CC.

## UNIT IV

General theory of classification – Normative principles – Planes of work – Fundamental categories – Facet analysis – Principles of inversion and facet sequence – Principles of helpful sequence.

## UNIT V

Canons of classification – Postulates and Postulational Procedures.

## UNIT VI

Various aspects of classification – Zone analysis, system and special phase analysis – Common isolates.

## REFERENCE BOOKS:

1. Krishnan Kumar, Theory of Classification (Delhi: Vikas, 1979)
2. Mills, Modern Outline of Library Classification (London Chapman & Hall, 1962)
3. Ranganathan SR, Descriptive Account of the Colon Classification(Bombay: APH, 1967),
4. Elements of Library Classification (Bombay: Asia 1962),
5. Sayers, Introduction to Library Classification(Bombay: Asia, 1967)
6. Sehgal RL, Handbook to Colon Classification(New Delhi: Ess Ess Publications), Introduction to Dewey Decimal Classification

# INFORMATION PROCESSING-II CATALOGUING & INDEXING (THEORY)

### *UNIT I*
Library catalogue – Definition, need, purpose and functions –Physical forms.

### UNIT II
Types of Library Catalogue – Subject catalogues – Classified, dictionary, alphabetics – Subject, alphabetical, class – Functions of subject catalogues and comparative study of different types – Indexing – Sear's List of subject headings – Subject headings- Chain procedure – Brief account of PRECIS, POPSI and Uniterm Indexing.

### UNIT III
Catalogue codes – Origin, growth and development since 1930 – Classified catalogue code CCC and AACR 2 – Choice and rendering the entries – Single, Multiple, Corporate authors.

### UNIT IV
Normative principles, canons and laws of cataloguing – their implications.

### UNIT V
Co-operative and centralized cataloguing – Role of library of congress, CIP, NPAC, MARC, LC accession list – Centralized cataloguing in India – Problems and prospects – Union catalogue, Limited cataloguing – Descriptive cataloguing – Standardization at International level – ISBD, ISBN, ISSN – registrar of news-papers – CODEN.

### UNIT VI
Symbiosis between classification and cataloguing.

**REFERENCE BOOKS:**
1.  Chhotey Lal, Information Sources in Science and Technology (Delhi: Bharati Pub, 1986)
2.  Doyle, Lauren B, Information Petrieval & Processing (Los Angels: Meville Pub. Co. 1975)
3.  Guha B, Documentation & Information: Systems, Techniques & Services (Calcutta: World Press, 1983)
4.  Karz, William A, Introd to Reference Work Ed2(NewYork: McGraw-Hill, 1974)
5.  Krishan Kumar, Reference Service Ed2(New Delhi: Vikas, 1980)
6.  Renganathan, Documentation and Its Facets(Bombay: Asia, 1963), Library Manual Ed2(Bangalore: S.R. Endowment, 1988)
7.  Sharma, JS & Grover, DR, Reference Service and Sources of Information (New Delhi: Ess Ess Publications, 1987)
8.  Viswanathan, Elements of Information Science(Delhi: Today & Tommorrow, 1976).

# Paper 5: INFORMATION TECHNOLOGY

**UNIT I**

Introduction to Computer & its components – Historical development – Hardware and Software – Operating Systems – Ms-Dos – Compliers – Software Package and utilization – WordStar.

**UNIT II**

Use of Dbase III Plus & CDS-ISIS in Library Automation – Database management system concepts – Creating database – Search retrieval and report generation.

**UNIT III**

Information Technology in Information storage and transfer – Reprography and Micrography – Microfilm & Microfiche – CD ROM.

**UNIT IV**

Electronic Transmission of Information – E-Mail – Fax – Teleconferencing.

**UNIT V**

National & International Information systems & services – Definition, need and purpose – Their services and products – INIS, AGRIS, DEVSIS, NISSAT – Commercial databases – DIALOG, STN – On-line information retrieval – MEDLINE.

**UNIT VI**

Communication networks – NTERNET, NICNET, INDONET, ERNET, INFLIBNET, RENNIC.

**REFERENCE BOOKS:**
1. Doyle, Lauren B, Information Retrieval & Processing(Los Angeles: Melville Pub. Co. 1975)
2. Grogan(Denis), Science & Technology: An Introd to Lit. Ed2(London: Clive Binseley, 1976)
3. Krishan Kumar, Reference Service Ed2(New Delhi: Vikas, 1980)
4. Meadow, Charles T, Analysis of Information Systems(London: Butterworth, 1974)
5. Presher R G, Information & Its communication:(New Delhi: Medallion Press, 1991), Introd to Reprography(New Delhi: Medallion, 1975)
6. Sharma J S & Gover D R, Reference service & sources of information (New Delhi Ess Ess Publications, 1987)
7. Somnath madan, Computer and Library Services(Delhi: Commonwealth Pubcns. 1987)
8. UNESCO/UNISIST, Guidelines for the Planning of National Scientific & Technical Information System(Paris: UNESCO 1974)
9. Ravichandra Rao I K, Library Automation Ed2(New Delhi: Wiley Eastern, 1990)
10. Vickery B C, Information Systems(London: Butterworths, 1973)
11. Viswanathan C G, Elements of Information Science(Delhi: Today & Tomorrow 1976)

# Paper 6: LIBRARY ADMINISTRATION & MANAGEMENT

**UNIT I**

General principles of management – Scientific management – MBO theory – Systems theory – Library management – Definition – Functions and principles – Application of general theories of management to libraries and information centres – POSDCORB.

**UNIT II**

System approach to library – Various Sub-systems – Routines of library administration – Acquisition – Technical – Maintenance, circulation – Periodical sections –Their functions in detail.

**UNIT III**

Personnel Management – Definition – Functions & importance – Job analysis, Job description & Job evaluation – Staffing in public and academic libraries in India – Ranganathan's Staff Formula – Training – recruitment, Selection and Salary pattern.

**UNIT IV**

Fiscal management – Sources of finance – Public libraries and academic libraries – Budgeting methods/types – Performance, PPBS – Zero based.

**UNIT V**

Library authorities – Library committees –Public & Academic libraries – Statistics – Library Rules & Regulations.

**UNIT VI**

Stock verification – Weeding out – Annual report – Library building planning – Furniture and equipment.

**REFERENCE BOOKS:**
1. Chakrabarthi AK, Treatise on Book selection Delhi: D.K. Publications, 1983)
2. Davar R S, The Management Process(Bombay: Progressive)
3. Godden, Library Technical Services (Newyork: Academic Press, 1984)
4. Ivancevich, John M, Management: Principles and Functions(Delhi: All India Traveller, 1991)
5. Krishan Kumar, Library Administration and Management Ed3(New Delhi: Vikas, 1980), Library Organization(New Delhi:Vikas)
6. Mittal RL, Library Administration: Theory and Practice Ed5(New Delhi: Metropoliton Book Co., 1984)
7. Nair Ahmed V S, Handbook of Library Administration(Madras:IIT, 1985)
8. Prasher RG, Managing University Libraries(New Delhi: Today & Tommorrow 1991)
9. Ranganathan SR and Gopinath, Library Administration, Library Book Selection, (Bombay:Asian Publishing House, 1959).

**Paper 7: INFORMATION PROCESSING-III CLASSIFICAITON (Practice)**

Classification of Documents according to Colon Classification (CC).

Classification of Documents according to abridged Dewey Decimal Classification (DDC) 19$^{th}$ edition.

For details refer Course material.

**Paper 8: INFORMATION PROCESSING-IV**
**CATALOGUING (Practice)**

Cataloguing of books, Serials and Non Nook material according to AACR-II and Sears list of Subject Headings.

For details refer Course material.

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**Course** **:** **Diploma in Company Secretaryship**

Mode : Distance Education

Duration : One Year

Pattern : Non-Semester

Eligibility : Pass in Higher Secondary (or) 3 year Diploma

Medium : English only

COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Marks |
|:---:|:---|:---:|
| 1 | Office Management | 100 |
| 2 | Business Accounting | 100 |
| 3 | Company Law | 100 |
| 4 | Secretarial Practice | 100 |
| 5 | Computer Applications in Business – Lab | 100 |
| | **Total** | **500** |

<div align="center">

**Paper -1: OFFICE MANAGEMENT**

</div>

## UNIT 1

Modern Office: Meaning and functions – Basic functions, Office Activities – Office management – Meaning – Principles of management –Office manager – Duties and responsibilities – Essential qualities.

## UNIT 2

Office Organisation: Principles – Organisation Chart – Office Supervisor – Functions – Responsibilities – Office accommodation and layout – Office furniture – Physical conditions – Office Systems: Meaning – Purpose – Importance – Principles – Office procedure – Mail Handling Systems: Handling inward mail and outward mail.

## UNIT 3

Office Environment – Office lighting – Designing a lighting systems – Ventilation – freedom from noise and dust – Physical hazards – Sanitary requirements.

## UNIT 4

Records Management: Meaning – Importance – Filing – Classification of files – Methods of Filing – Advantages – Essentials of a good filing system – Filing equipments. Indexing – Types of Index – Office Forms and Design: Types, objects, control – Office Stationeries and Supplies: Types – Selection – Purchase – Regulating consumption.

## UNIT 5

Office Equipments and Machines: Office furniture – Office machines: Object, types – Mechanisation of office work – Types – Advantages – Principles in selection of furniture, equipment and machines.

## UNIT 6

Purchase and Stores Management: Purchase systems – Principles – Purchase procedure – Store keeping and records – Stock control – Purchase related correspondence: Quotation, Order, Invoice, Despatch advice, Complaint and settlement.

### Reference Books:

1. Prasantha Ghosh K, *Office Management*, Sultan Chand and Sons, New Delhi, 1995.
2. Denyer JC and Josephine Shaw, *Office Management*, ELBS, London, 1982.
3. William H Leffingwell &Edwin M Robinson, *Textbook of Office Management*, TMH, New Delhi.
4. Balachandran .V and Chandra Sekaran .V, Office Management, Tata McGraw Hill, New Delhi, 2009.

# Paper - 2: BUSINESS ACCOUNTING

## UNIT-I

Introduction: Need for accounting, Advantages - Methods of Accounting , Journal, Ledger, Posting, Maintaining Purchase books, Trial balance – Methods of preparation, Final Accounts, Manufacturing Accounts, Trading, profit and loss Accounts, Balance Sheet – Adjustments.

## UNIT-II

Bills of exchange and the treatment: Average due date – Meaning - Uses: Determination of due date, Average due date for calculation of interest – Determination of due date.

## UNIT-III

Final accounts of non-trading concern:- Introduction, Final Accounts, Final accounts for non profit organizations, Receipts and Payment Account, Income and Expenditure Accounts -  Balance sheet.

## UNIT-IV

Company Accounts: Issue of shares – Issue of redeemable preference shares – Forfeiture and re-issue of shares – Redemption of redeemable preference shares – Issue of debentures – Redemption of debentures.

## UNIT-V

Company Final Accounts – Profits prior to incorporation.

## UNIT –VI

Analysis of Financial Statements – Trend Analysis -  Ratio Analysis.

## TEXT AND REFERENCE BOOKS:

1. Dr.M.A. Arulanandam & K.S. Raman: Advanced Accountancy – Himalaya Publishing House, Mumbai.
2. M.C.Sukhla and T.S. Grewal :  Advanced Accountancy – S. Chand & Co, New Delhi.
3. Jain & Narang : Advanced Accounts – Kalyani Publishers, Ludhiana.
4. R.L. Gupta : Advanced Accounting, Sultan Chand & Sons, New Delhi.

## Paper - 3: COMPANY LAW

**UNIT I**

Company: Meaning and Characteristics – Types of Companies – Private Company Vs Public Company, Formation of Company: Incorporation – Documents to be filed with the Registrar – Certificate of Incorporation – Promoter of Companies.

**UNIT II**

Memorandum of Association – Contents – Alteration – Doctrine of Ultra-Wires – Articles – Alteration – Doctrine of Indoor Management, Prospectus: Contents - Misrepresentation in prospectus – Statement in Lieu of Prospectus.

**UNIT III**

Share Capital and Membership in a Company: Share – Meaning and Types, allotment of Shares, transfer and transmission of shares.

**UNIT IV**

Company Management: Director – Definition – Qualification – Appointments - Disqualification – Powers – Duties and Liabilities of Directors.

**UNIT V**

Company Meetings: Statutory Meeting – Annual General Meeting – Extra-Ordinary General Meeting - Requisites of a valid meeting – Board Meeting – Resolution – Types – Chairman – Duties and Powers .

**UNIT VI**

Winding Up: Meaning – Modes of Winding up – Voluntary winding up –Types - Members and Creditors voluntary winding up – winding up subject to supervision of court.

**REFERENCE BOOKS:**
3       Kapoor N D : Elements of Company Law, Sultan Chand & Sons, New Delhi.
4       S.K. Pandal : Company Law & Practice, Bharat Law House, New Delhi.
5       G.K. Kapoor : Company law & Practice, Sultan chand & sons, New Delhi.
6       Ghosh P.K. & Balachandran .V: Company Law & Practice I & II, Sultan Chand & Sons, New Delhi.
5.      Bhulchandani : Company Law, Himalaya Publishing House, Mumbai.

## Paper - 4:  SECRETARIAL PRACTICE

**UNIT-I**

Company Secretary:  Appointment – Dismissal – Role of company secretary.

**UNIT-II**

Secretarial procedure for issue of shares – Allotment of shares – Issue of share certificate – Transfer and transmission of shares – Registration of charges – Effects of non-registration.

**UNIT-III**

Types of meetings – Secretarial duties in connection with Statutory Meeting, AGM, EGM and Board Meeting – Drafting of notice agenda, Minutes.

**UNIT-IV**

Procedures for payment of dividends – Treatment of unclaimed dividend.

**UNIT-V**

Secretarial procedure for the appointment of directors and their removal.

**UNIT-VI**

Winding up: Procedure for winging up – Duties of secretary in respect of winding up – Procedures after winding up orders – Defunct company.

**TEXT AND REFERENCE BOOKS:**

4. Ghosh P K and Balachandran .V : Company Law and Practice - I & II, Sultan Chand & Sons, New Delhi.
5. Tandon B N : Manual of Secretarial Practice, S. Chand & Co, New Delhi.
6. Kapoor . ND: Company Law and Secretarial Practice, Sultan Chand & Sons, New Delhi.
4. A.K. Majumdar and Dr.G.K. Kapoor : Taxmann Publications, New Delhi.

# PAPER – 5 -  COMPUTER APPLICATIONS IN BUSINESS – ( LAB)

**Unit – I :** Introduction to computers – Characteristics of computers – Areas of computer application – Components of computers – Hardware and Software – Windows 98 – Desktop and Task bar – Start menu – Window explorer.

**Unit – II:** MS word – Creating a word document – Business letters – Working with tables – Mail merge – Microsoft Excel – Building worksheet – Functions of Excel – Data Consolidations.

**Unit – III :** MS Power point – Creating a presentation – Masters in MS Power point – Slide Navigation – Custom animation – MS Access – Data type in MS access – Parts of Access Window – Opening of an existing file – Creating a new table – Operators in MS Access.

**Unit – IV :** Starting Tally and company creation – Keys at Gateway – Selecting Company – Features of Tally – Tally and accounting – Tally and Financial Management – Tally and Inventory Management – VAT and Tally.

**Unit – V :** Classification of accounts – Creation of groups – Creation of Ledger – Trading account – Profit and Loss Account – Balance Sheet – Final accounts and Tally – Trial Balance.

**Unit – VI :** Vouchers – Type of vouchers – Creation of Voucher – Bank Reconciliation Statement – Inventory – Inventory Voucher – Re-order level.

**Reference Books:**

1. Srinivasa Vallabhan: S.V. Computer Applications in Business, Sultan Chand and Sons,
   New Delhi.

2. Palanivel .S : Tally Accounting Software, Margham Publications, Chennai.

3. Namrata Agarwal : Financial Accounting on Computers using Tally.

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| Course | : | **Certificate Course in Self Help Group Management(Racjtpf;FOf;fs; Nkyhz;ik)** |
|---|---|---|
| Mode | : | Distance Education |
| Duration | : | Six months |
| Medium | : | Tamil only |
| Eligibility | : | Those who have completed 18 years of age and can read and write Tamil. |

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Subject Code | Title | Total Marks |
|---|---|---|
| 1 | Fundamentals of Self Help Groups | 100 |
| 2 | Self Help Groups and Women Empowerment | 100 |
| | **Total** | **200** |

# Paper 1: FUNDAMENTALS OF SELF HELP GROUPS (SHG)

## *UNIT-1*

Self-Help Group: Concept – Definition – Characteristics – Sustainability – Need for women collectivity – Components – Structure and functions – Form of procedure.

## UNIT-2

SHG Formation: Criteria for selecting members – Group discussion – Do's and Don'ts procedures – Group management – Rules – General responsibilities of members – By Laws of SHG – Group meetings – BLCC & PLF – Group dynamics – Group meetings.

## UNIT-3

Training: Animators and representatives – Roles and responsibilities – SHG member training – A&R training – PLF training – EDP and skill upgradation training – Capacity building – Marketing.

## UNIT-4

Micro-Credit Assistance: Group savings – Group loan – Group maintenance fund – Group common fund – Group reserve fund – Rotation of group funds – Group loan administration – Book keeping – Accounting – Annual action plan – Annual auditing.

## UNIT-5

Financial Assistance Schemes: Additional credit delivery system – Credit linkage – NABARD – TAHDCO – SGSY – SGSRY – Backward Class Commission.

**REFERENCE BOOKS:**

1. Dr. Lalitha, "Self Help Groups" – Gandhigram Rural Institute, Gandhigram.
2. A Handbook for Self-Help Groups, Tamil Nadu Corporation for Development of Women Ltd., and UNICEF, Feb. 2004.

**Course Material Prepared by:**

**Dr. K. Manimekalai**

Reader in Women's Studies

Alagappa University, Karaikudi.

## Paper -2 : Self Help Groups and Women Empowerment

### UNIT-1

Women Empowerment: National Policy 2001: Goals – Objectives – Policy prescriptions – Operational strategies – Economic, social and political empowerment.

### UNIT-2

Functionaries: GO's – DRDA – Women Development Corporations – Banks – NABARD – Centre for Women's Studies.

### UNIT-3

Women Empowerment Schemes: Mahalir Thittam: Goals – Objectives – Structure and functions – State and District levels.

### UNIT-4

SHGs as Change Agents: Health, Nutrition – HIV/AIDS – Children's health – Girl children – Education – Eradication of social evils – Political participation – Gender sensitization.

### UNIT-5

NGOs: Partners in micro-finance – Innovation – Role in SHG programme – Formation – Linkage – Monitoring – Training – Stakeholders.

**REFERENCE BOOKS:**

1. National Policy for the Empowerment of Women 2001, Dept. of Women and Child Development, MHRD, Govt. of India.

2. A Handbook for Self-Help Groups, Tamil Nadu Corporation for Development of Women Ltd., and UNICEF, Feb. 2004.

3. Dr. Lalitha, "Self Help Groups" – Gandhigram Rural Institute, Gandhigram.

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| | Course | : | **Certificate in Library and Information Science (CLISc) [2008-09 onwards]** |
|---|---|---|---|
| | Mode | : | Distance Education |
| | Duration | : | 6 Months |
| | Eligibility | : | +2 |
| | Medium of Instruction: | | English / Tamil |

## COURSE OF STUDY & SCHEME OF EXAMINATIONS

| Sl.No | Subject | Theory | Practical | Passing Minimum |
|---|---|---|---|---|
| 1. | Fundamentals of Library & Information Science | 100 | | 40 |
| 2. | Information Sources and Services | 100 | | 40 |
| 3. | Information Processing Practice (Classification & Cataloguing)* | | 100 | 40 |
| | Total | 200 | 100 | |

***CERTIFICATE IN LIBRARY AND INFORMATION SCIENCE***

Time: 2 hours
Maximum Marks: 100

**Part-A**     (40 x 1 = 40 marks)

Answer **all** questions

| | | |
|---|---|---|
| Objective Questions | : | 1 to 40 |
| Fill in the blanks | : | 10 |
| True/ False | : | 10 |
| Match the following | : | 10 |
| Multiple choice | : | 10 |

**Part-B**     (10 x 6 = 60 marks)

Answer any **Ten** questions

Questions: 41 to 55

Each answer not to exceed half a page.

**Completion of the Course:**

The students have to successfully complete their course within 5 years from the year of completion of the course, failing which their registration will stand automatically cancelled and they have to register afresh, if they want to continue the course.

**Other Regulations:**

Besides the above, the common regulations of the University shall also be applicable to this programme.

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## *Paper1:*

## *Fundamentals of Library &Information Science*
## Objectives :

1. To enable students acquire knowledge regarding importance of Libraries in the context of social, economic, political, scientific and technological environment.
2. To enable the students to understand at different levels of information systems in the society and their functions.
3. To enable the students apply their knowledge in various library practice.

### Unit1:
Evolution, growth and development of LIS schools in India-current trends.

### Unit2:
Types of Libraries: Academic Public and Special Libraries.

### Unit3:
Library concepts & Legislation: Five laws of Library science, Professional ethics of librarian, Delivery of books and newspaper act

### Unit4:
Library Association and International bodies: Library Association –ILA, IASCIC,ALA, IFLA and UNESCO

### Unit5:
Library Rules &Regulation, Stock Verification, Annual Reports, Budgets, Library buildings, furniture, equipments.
### Recommended Books :
1. Ranganthan, S.R., Five laws of Library Science, London:Vikas,1957
2. Atherton, Paline, Handbook of information system and services, Paris:UNESCO, 1977
3.Khanna,J.K, Library and Society, Kurushetra: Research Publication, 1987

# Paper2: Information Sources and Services
## Objectives :

1. To enable the students acquire knowledge regarding various Information sources and services
2. To enable the students understand handling traditional and digital information services
3. To enable the students apply their knowledge in Information Sources and Services

### Unit1:
Information: Definition, Data, Knowledge, Nature and characteristics of information, Information Transfer, Barrier to communication.

### Unit2:
Sources of information – Documentary and Non Documentary sources, Types of Information Sources-Primary, Secondary and Tertiary Sources.

### Unit3:
Directories, Encyclopedias, Year Books, Handbooks, Almanacs &, Atlases, Geo Sources, News summaries

### Unit4:
Types of information services: Types of Reference Service, Initiation to Fresh man

### Unit5:
History and Generations of computers – Components of Computers – Block Diagram

### Recommended Books:
1. Davinson, "Reference Services" , London, Cliv Bingley, 1980
2. Foskett, "Library system and information services", London" Crossy & Lockwood.
3. Kemp, Current Awareness Services", London: Clive Bengley, 1979
4. Operating system Concepts by A Silberchatz, P B Galvi & G Gagne

## Paper3:
## Information Processing Practice(**Cataloguing & Classification**)

Classification:  (Simple titles)

☑        Colon Classification (CC),

☑        Dewey Decimal Classification (DDC)

Cataloguing:

☑        Classified Catalogue Code (CCC)