

JEE (Advanced) 2017



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर
Indian Institute of Technology Bhubaneswar



IIT

Dharwad



IIT Goa



Indian Institute of Technology Hyderabad



॥ ज्ञानम् सर्वमनीयम् ॥



IIT
Jammu



॥ त्वं ज्ञानमयो विद्वानमयोऽसि ॥



IIT Palakkad



Information Brochure

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Part-I

THE INSTITUTES

1. Indian Institutes of Technology

Indian Institutes of Technology (IITs) are institutions of national importance established through Acts of Parliament for fostering excellence in education. Over the years, IITs have created a world class educational platform that is dynamically sustained through quality teaching and internationally acclaimed research with excellent infrastructure and the best available minds. The faculty and alumni of IITs occupy key positions in academia and industry, both in India and abroad, and continue to make considerable impact on all sections of the society. At present, there are twenty three IITs across the country.

The primary objectives of IITs are as follows:

- To create an environment that encourages freedom of thought and pursuit of excellence, and inculcates the necessary vision and self-discipline to achieve excellence.
- To build a solid foundation of scientific and technical knowledge and to prepare competent and motivated engineers and scientists.
- To kindle an entrepreneurial spirit among the students.
- To prepare the students to become outstanding professionals and contribute to nation-building.

Admission into various undergraduate programmes (see **2. ACADEMIC PROGRAMS**) across IITs is through the Joint Entrance Examination (Advanced).

ZONES, NAMES, LOCATIONS AND ABBREVIATIONS OF THE TWENTY THREE IITs

East Zone	Indian Institute of Technology Kharagpur	Kharagpur	IITKGP*
	Indian Institute of Technology Bhubaneswar	Bhubaneswar	IITBBS
	Indian Institute of Technology (ISM)	Dhanbad	IIT (ISM)
Central Zone	Indian Institute of Technology Kanpur	Kanpur	IITK*
	Indian Institute of Technology Bhilai	Bhilai	IITBH
	Indian Institute of Technology (BHU)	Varanasi	IIT (BHU)
	Indian Institute of Technology Indore	Indore	IITI
North-Central Zone	Indian Institute of Technology Delhi	New Delhi	IITD*
	Indian Institute of Technology Jammu	Jammu	IITJM
	Indian Institute of Technology Jodhpur	Jodhpur	IITJ
North-East Zone	Indian Institute of Technology Guwahati	Guwahati	IITG*
	Indian Institute of Technology Patna	Patna	IITP
North Zone	Indian Institute of Technology Roorkee	Roorkee	IITR*
	Indian Institute of Technology Mandi	Mandi	IITMandi
	Indian Institute of Technology Ropar	Ropar	IITRPR
South Zone	Indian Institute of Technology Madras	Chennai	IITM*
	Indian Institute of Technology Hyderabad	Hyderabad	IITH
	Indian Institute of Technology Palakkad	Palakkad	IITPKD
	Indian Institute of Technology Tirupati	Tirupati	IITTP
West Zone	Indian Institute of Technology Bombay	Mumbai	IITB*
	Indian Institute of Technology Dharwad	Dharwad	IITDWD
	Indian Institute of Technology Gandhinagar	Gandhinagar	IITGN
	Indian Institute of Technology Goa	Goa	IITGOA

- Zonal Coordinating IITs to conduct JEE (Advanced) 2017 examination.

2. ACADEMIC PROGRAMS

Through JEE (Advanced), IITs offer admission into undergraduate courses leading to a Bachelor's, Integrated Master's or Bachelor-Master Dual Degree in Engineering, Sciences, Architecture, or Pharmaceutics. Both Bachelor's and Master's degrees are awarded to candidates enrolled in the dual degree programs upon successful completion of the course curriculum. In a few of the IITs, students enrolled into the 4-year Bachelor's program have the option to convert to B.Tech. (Honors) and/or B.Tech. with Minors. The types of academic programs offered at IITs and their minimum duration are given in the next page.

However, not all programs and courses are available in all the institutes. The relevant programs and courses offered in 2016 are given in **Annexure-III: COURSES OFFERED IN 2016**. The programs that will be offered in 2017 will be announced at the time of seat allocation (i.e., filling-in of choices for admission).

The programs are credit-based and thus offer the flexibility to progress at one's own pace. A minimum level of performance is essential for satisfactory progress. The medium of instruction is English.

All Indian nationals who satisfy the eligibility criteria (see **Section 10**) can appear in JEE (Advanced). The successful candidates meeting the Class XII performance criterion (see **Section 25**) are eligible for admission into IITs. While allotting seats, certain policies are followed depending on candidates' category and/or nationality.

TYPES OF ACADEMIC PROGRAMS OFFERED AT IITs AND THEIR MINIMUM DURATION*

B.Tech.	Bachelor of Technology	4 years
B.S.	Bachelor of Science	4 years
B.Pharm.	Bachelor of Pharmaceutics	4 years
B.Arch.	Bachelor of Architecture	5 years
Dual Degree B.Tech.- M.Tech.	Dual Degree Bachelor of Technology and Master of Technology	5 years
Dual Degree B.S.-M.S.	Dual Degree Bachelor of Science and Master of Science	5 years
Integrated Dual Degree M.Pharm.	Integrated Dual Degree Master of Pharmaceutics	5 years
Integrated M.Tech.	Integrated Master of Technology	5 years
Integrated M.Sc.	Integrated Master of Science	5 years
Dual Degree B.Pharm.- M.Pharm	Dual Degree Bachelor of Pharmaceutics and Master of Pharmaceutics	5 years

*Only those academic programs for which admission is based on JEE (Advanced) examination are shown here. These Institutes also have other academic programs (B.Des., M.Tech., M.Sc., M.Des., Ph.D., etc.) with different admission criteria.

3. RESERVATION OF SEATS

Indian nationals belonging to certain categories are admitted under the seats reserved for them in accordance with the rules of the Government of India. The categories and the extent of reservation are as follows:

- Other Backward Classes belonging to the Non-Creamy Layer (OBC-NCL) – 27% of seats in every course. The backward class should be in the current updated central list of OBCs (www.ncbc.nic.in).

Candidates belonging to the creamy layer of OBC are **NOT** entitled for reservation. Such candidates are treated as belonging to the general (GEN), i.e. unreserved category, and they will be eligible only for the OPEN seats – *the seats for which everyone is eligible*.

- Scheduled Caste (SC) – 15% of seats in every course.
- Scheduled Tribe (ST) – 7.5% of seats in every course.

The benefit of reservation will be given only to those castes and tribes that are mentioned in the respective central list of corresponding states published by the Government of India (<http://socialjustice.nic.in> and <http://tribal.nic.in>).

- Persons with Disability (PwD) – 3% seats in each of OPEN, OBC-NCL, SC and ST category seats.

Benefit would be given to those who have at least 40% impairment irrespective of the type of disability i.e., locomotor, visual or SEVERE dyslexic.

Leprosy-cured candidates who are otherwise fit to pursue the courses are also included in this sub-category.

Candidates belonging to the OBC-NCL, SC, ST and PwD categories will be declared as qualified on the basis of a relaxed criterion (see **21. RANK LISTS**).

Unfilled seats reserved under OBC-NCL category will be de-reserved to OPEN category seats. However, seats remaining vacant under the SC and ST categories shall **NOT** be de-reserved to any category. The reservation for PwD candidates is horizontal and hence, unfilled seats will be de-reserved to the respective categories i.e., unfilled SC-PwD seats will be converted to the SC category seats and so on.

The category of a candidate as entered in the database, which will be made available by the JEE Apex Board [which conducts JEE (Main) 2017 examination], will be final and requests for change of category will NOT be entertained.

4. DEFENCE SERVICE CANDIDATES

Defence Service (DS) candidates are children of defence / paramilitary personnel killed or permanently disabled in action during war or peacetime operations. Two seats are available for preferential allotment in each Institute for DS candidates. To avail this preferential allotment, a DS candidate must be in the Common Rank List of JEE (Advanced) 2017 (see **21. RANK LISTS**).

5. FOREIGN NATIONALS

Candidates who are **NOT** citizens of India (by birth or naturalized), do not belong to PIO/OCI category, and whose parents are not citizens of India and do not come under PIO/OCI category at the time of registering for JEE (Advanced) 2017 are treated as foreign nationals. Seats allotted to foreign nationals are supernumerary with a cap of 10% of total number of seats in every course. However, the seats allotted to PIO/OCI card holders will be under OPEN category, but not supernumerary.

Foreign nationals are outside the ambit of reservation of seats under the OBC-NCL, SC, ST and PwD categories as specified herein. The relevant information for foreign candidates is available at the following link:

<http://www.jeeadv.ac.in/pdf/foreign.pdf>

6. OTHER INSTITUTES

Other centrally funded institutes have used JEE (Advanced) ranks in the past.

These include:

- Indian Institute of Science, Bangalore (IISc)
- Indian Institutes of Science Education and Research (IISERs) located in Berhampur, Bhopal, Kolkata, Mohali, Pune, Thiruvananthapuram and Tirupati
- Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram
- Rajiv Gandhi Institute of Petroleum Technology (RGIPT), Rae Bareilly
- Indian Institute of Petroleum & Energy, Visakhapatnam

Candidates should contact these institutes directly for additional information.

Part-II

THE EXAMINATION

7. THE EXAMINATION

The Joint Entrance Examination (Advanced) 2017 [JEE (Advanced) 2017] will be conducted by the seven Zonal Coordinating (ZC) IITs under the guidance of the Joint Admission Board (JAB) 2017. The performance of a candidate in this examination will form the basis for admission to the Bachelor's, Integrated Master's and Dual Degree programs (entry at the 10+2 level) in all the IITs. The decisions of the JAB 2017 will be final in all matters related to JEE (Advanced) 2017 and admission to IITs.

8. SCHEDULE OF JEE (ADVANCED) 2017

The examination consists of two papers (Paper 1 and Paper 2) of three hour duration each. **Both the papers are compulsory.** The examination will be held as per the following schedule:

Exam Date	Sunday, 21 May 2017
Paper 1	09:00 IST to 12:00 IST
Paper 2	14:00 IST to 17:00 IST

It may be noted that the schedule will remain the same even if 21 May 2017 is declared a public holiday.

Candidates using the services of a scribe (see **13. SERVICES OF A SCRIBE**) will get one hour compensatory time i.e., the end time will be 13:00 IST for Paper 1 and 18:00 IST for Paper 2.

9. JEE (MAIN) 2017

Indian nationals (including PIO/OCI) who wish to appear in JEE (Advanced) 2017 must write Paper-1 of JEE (Main) 2017 which will be held in the month of April 2017. Further information about JEE (Main) 2017 may be obtained from the website www.jeemain.nic.in.

10. ELIGIBILITY CRITERIA FOR INDIAN NATIONALS (including PIO/OCI) FOR APPEARING IN JEE (ADVANCED) 2017

All the candidates must fulfil each and every one of the following five criteria to appear in JEE (Advanced) 2017.

Criterion 1 – Performance in JEE (Main) 2017: Candidates should be among the top 2,20,000 (including all categories) by scoring positive marks in Paper-1 of JEE (Main) 2017.

The percentages of various categories are: 27% for OBC-NCL, 15% for SC, 7.5% for ST and the remaining 50.5% is OPEN for all. Within each of these four categories, 3% horizontal reservation is available for PwD (including Dyslexic) candidates.

As shown in the following table, the usual order will be followed while choosing top 2,20,000 candidates in various categories who have scored positive marks in JEE (Main) 2017.

Category-wise distribution of top 2,20,000 candidates (Criterion 1)

ORDER	CATEGORY	Number of “Top” candidates	
1	OPEN	107,767	Total 1,11,100
2	OPEN-PwD	3,333	
3	OBC-NCL	57,618	Total 59,400
4	OBC-NCL-PwD	1,782	
5	SC	32,010	Total 33,000
6	SC-PwD	990	
7	ST	16,005	Total 16,500
8	ST-PwD	495	

Criterion 2 – Age limit: Candidates should have been born on or after October 1, 1992. Five years relaxation is given to SC, ST and PwD candidates, i.e., these candidates should have been born on or after October 1, 1987.

Criterion 3 – Number of attempts: A candidate can attempt JEE (Advanced) a maximum of two times in consecutive years. Therefore, candidates who appeared in JEE (Advanced) 2016 for the first time are also eligible.

Criterion 4 – Appearance in Class XII (or equivalent) examination: A candidate should have appeared for the Class XII (or equivalent) examination for the first time in either 2016 or 2017. However, candidates whose Class XII (or equivalent) examination Board results for the academic year 2014-15 were declared after June 2015 are eligible to appear in JEE (Advanced) 2017.

Criterion 5 – Earlier admission at IITs: A candidate should **NOT** have been admitted in an IIT irrespective of whether or not he/she continued in the program) **OR**

accepted the IIT seat by reporting at a reporting centre in the past. The candidates whose admission at IITs was cancelled are also **NOT** eligible to appear in JEE (Advanced) 2017.

Candidates who have been admitted to a preparatory course in any of the IITs for the first time in 2016 can appear in JEE (Advanced) 2017. The candidates who have paid seat acceptance fee but not accepted the seat (by not reporting at any reporting centre during joint seat allocation in 2016) are eligible to appear in JEE (Advanced) 2017.

For eligibility criteria for foreign candidates can be found:

<http://www.jeeadv.ac.in/pdf/foreign.pdf>.

11. REGISTRATION FOR JEE (ADVANCED) 2017

Eligibility: The candidate should satisfy each and every one of the five eligibility criteria [see **10. ELIGIBILITY CRITERIA FOR APPEARING IN JEE (ADVANCED) 2017**]. Registration will be cancelled if, at a later date, it is found that the candidate does not meet any of these five eligibility criteria.

Registration Portal: Candidates should register for appearing in JEE (Advanced) 2017. Registration is only through the online portal where detailed instructions will be provided.

Online registration portal	www.jeeadv.ac.in
Online registration begins	Friday, April 28, 2017 10:00 IST
Online registration closes	Tuesday, May 2, 2017 17:00 IST
Regn. with late fee begins	Wednesday, May 3, 2017 10.00 IST
Regn. With late fee closes	Thursday, May 4, 2017 17.00 IST

Registration Procedure: The procedure consists of three basic steps.

Step-1: After login, provide the basic data including the choice of the language of question paper (English or Hindi), the choices of the cities for the examination [See **18. CITIES AND TOWNS WHERE JEE (ADVANCED) 2017 WILL BE HELD**]. The candidate will have the option of adding another cell phone number on top of the number/s provided during JEE (Main) registration. Please note that the JEE (Advanced) 2017 result will be sent to one of these numbers by SMS.

Step-2: Upload the scanned copies of all requisite documents [See **14. DOCUMENTS REQUIRED FOR REGISTRATION**].

Step-3: Pay registration fee [See **12. REGISTRATION FEE FOR JEE (ADVANCED) 2017**]. Registration fee is **NEITHER** refundable **NOR** transferable.

12. REGISTRATION FEE FOR JEE (ADVANCED) 2017

Examination Centres in India	
Female Candidates	: INR 1200
SC, ST, PwD Candidates	: INR 1200
All Other Candidates	: INR 2400
Late Fee	: INR 500
Exam Centres Outside India (SAARC Countries)	
All Candidates	: USD 135
Late Fee	: USD 80
Exam Centres Outside India (Non-SAARC Countries)	
All Candidates	: USD 270
Late Fee	: USD 80

- The registration fee shown above DOES NOT INCLUDE **service charges, processing fees and any other charges that the banks may levy.**
- Detailed instructions related to the payment of registration fee will be given on the online registration portal.

13. SERVICES OF A SCRIBE

- The services of a scribe (amanuensis) are available to candidates who are visually impaired, dyslexic, have disability in the upper limbs or have lost fingers / hands thereby preventing them from bubbling the optical response sheet (ORS).
- To avail this benefit, the candidate should request the Chairman, JEE (Advanced) 2017, of the respective zonal coordinating IIT in the prescribed format (FORM-SCRIBE). The requisition, along with a copy of the PwD certificate (FORM-PwD [II/III/IV, whichever is applicable]) OR a copy of the certificate of Dyslexic candidate (FORM-DYSLEXIC 1 and 2), whichever is applicable, should be uploaded at the time of online registration for JEE (Advanced) 2017. The formats for the request letter and PwD/Dyslexic certificate are given in **Annexure-II: CERTIFICATE FORMATS.**
- Zonal coordinating IITs will make arrangements, through the Presiding Officer (PO) of the Examination Center, to provide a panel of scribes (amanuenses). Scribes will be students of Class XI from the science stream with Mathematics as one of the subjects. The PwD/dyslexic candidate has to choose a scribe from this panel. The candidates will **NOT** be allowed to bring their own scribes.
- The candidate will be allowed to meet the scribe one day prior to the examination i.e., on Saturday, 20 May 2017, in the presence of the IIT Representatives (IRs), Presiding Officer (PO) and an Invigilator.

- If it is found that a candidate has used the services of a scribe, and consequently one extra hour, but does not possess the extent of disability that warrants the use of a scribe, he/she will be excluded from the process of evaluation, ranking and admission. If the candidate has already been admitted, his/her admission will be cancelled.

14. DOCUMENTS REQUIRED FOR REGISTRATION

Given below is a list of certificates whose scanned copies are to be uploaded at the time of online registration for JEE (Advanced) 2017. The formats of the certificates, which are indicated in the brackets, are given in **Annexure-II: CERTIFICATE FORMATS**.

All candidates

- (1) Class X certificate if the date of birth is mentioned in it OR birth certificate.
- (2) Class XII (or equivalent examination) certificate (for those who appeared for this examination in 2016 or whose result was declared after June 2015).
- (3) If the name is not same as in the Class X certificate, gazette notification showing the change of name.

For Candidates seeking admission under the OBC-NCL category

OBC-NCL certificate (FORM-OBC-NCL) should have been issued on or after April 1, 2017 in confirmation with the latest guidelines of the Government of India. Visit www.ncbc.nic.in for latest guidelines and updates of the Central List of State-wise OBCs.

For Candidates seeking admission under the SC or ST category

Caste (for SC) or tribe (for ST) certificate (FORM-SC/ST).

For Candidates seeking admission under the PwD category

Physical Disability certificate (FORM-PwD II/III/IV whichever is applicable) issued by the notified medical authority.

Dyslexic candidate needs to submit FORM-DYSLEXIC 1 and 2 instead of FORM-PwD. The certificate must mention 'SEVERE' to enable the candidate get the benefit of PwD category.

Individual IITs may constitute a medical board at the time of admission to test the candidate's level of disability.

For Candidates needing the services of a scribe

Request letter to the Chairman of the respective zonal coordinating IIT (FORM-SCRIBE).

For Candidates seeking admission under the DS category

Certificate (FORM-DS) issued by a competent authority in the Directorate of Resettlement and Rehabilitation, New Delhi under the Ministry of Defence or the Ministry of Home Affairs, Govt. of India.

For PIO/OCI Card holders

PIO card or OCI certificate, as applicable. **Foreign Candidates may go to the link <http://www.jeeadv.ac.in/pdf/foreign.pdf>.**

For Candidates whose Class XII examination Board is outside India or not listed in section 24. EXAMINATIONS CONSIDERED AS EQUIVALENT TO CLASS XII

A certificate from the Association of Indian Universities to the effect that the examination qualified by the candidates is equivalent to the Class XII examination.

15. ADMIT CARD

- Candidates who successfully registered for JEE (Advanced) 2017 can download the admit card from the online registration portal: www.jeeadv.ac.in

Portal for downloading admit card	www.jeeadv.ac.in
Admit card downloading	Wednesday, May 10, 2017, 10:00 IST to Sunday, May 21, 2017, 09:00 IST

- The admit card will bear the following details of the candidate: Name, Roll number for JEE (Advanced) 2017, photograph, signature, date of birth, address for correspondence, category and language of the question paper.
- In addition, the admit card will have the name and address of the examination centre allotted to the candidate.
- Candidates should carefully examine the entries in the admit card and in case of any discrepancy, contact the Chairman, JEE (Advanced) 2017 of the respective zonal coordinating IIT.
- In case the admit card is not available for downloading, the candidate should contact the Chairman, JEE (Advanced) 2017 of the respective zonal coordinating IIT.

- A copy of the downloaded admit card should be produced at the time of examination. The original admit card will be issued to the candidate during the Paper 1 examination. **This original admit card must be retained safely till all the formalities of admission are complete.**

16. QUESTION PAPERS

- There are two question papers: Paper 1 and Paper 2 of three hours duration each. Both papers are compulsory.
- Each question paper will consist of three separate sections, viz., Physics, Chemistry and Mathematics. The syllabi are given in **Annexure-I: SYLLABI**.
- The question papers will consist of objective type (multiple choice and numerical answer type) questions designed to test comprehension, reasoning and analytical ability of candidates.
- Negative marks will be awarded for incorrect answers to some of the questions.
- The candidates must carefully read and adhere to the detailed instructions given in the question paper.
- The question paper will be in either English or Hindi. Candidates must exercise the choice of question paper language while registering for JEE (Advanced) 2017. Change of question paper language will **NOT** be entertained after the registration.

17. OPTICAL RESPONSE SHEET (ORS)

- The answer sheet of each paper of JEE (Advanced) 2017 is a machine-readable ORS.
- The ORS has two pages with the same lay-out. The first page of the ORS is machine readable. It is designed so as to leave impressions of the responses on the second page.
- Candidates should not separate or disturb the alignment of the two pages of the ORS at any stage and under any circumstance.
- The answers to all the questions should be marked on the first page of the ORS by darkening the appropriate bubble or bubbles (as per the instructions given in the question paper).
- Candidates should use BLACK BALL POINT pen for darkening the bubbles.
- Candidates should apply adequate pressure to ensure that a proper impression is made on the second page of the ORS. Other instructions for darkening the bubbles will be printed on the question paper and candidates must strictly adhere to these instructions.
- The second page of the ORS will be handed over to the candidates by the invigilator at the end of the examination.

18. CITIES AND TOWNS WHERE JEE (ADVANCED) 2017 WILL BE HELD

JEE (Advanced) 2017 will be held in select cities and towns in India. Candidates should compulsorily choose three cities / towns from a zone of their choice at the time of online registration. Efforts will be made to allot the city / town of the candidate's choice but a different city / town in the same zone may be allotted under exceptional circumstances. Request for change of city / town will **NOT** be entertained under any circumstance. **Foreign candidates may follow the link for exam centres in foreign countries.** <http://www.jeeadv.ac.in/pdf/foreign.pdf>.

CITIES AND TOWNS WHERE JEE (ADVANCED) 2017 WILL BE HELD

City/Town	Code	City/Town	Code	City/Town	Code
<u>IIT BOMBAY ZONE</u>					
GOA		Delhi (North)	203	BIHAR	
Panaji	101	Delhi (South)	204	Gaya	305
GUJARAT		Delhi (Central)	205	Katihar	306
Ahmedabad	102	HARYANA		Muzaffarpur	307
Bhavnagar	113	Faridabad	206	Patna	308
Rajkot	103	Gurugram	207	MANIPUR	
Surat	104	JAMMU and KASHMIR			
Vadodara	105	Jammu	208	MEGHALAYA	
Bhuj	114	MADHYA PRADESH			
MAHARASHTRA		Indore	209	WEST BENGAL	
Mumbai	106	RAJASTHAN			
Nagpur	107	Sikar	210	<u>IIT KANPUR ZONE</u>	
Nashik	117	Udaipur	211	MADHYA PRADESH	
Navi Mumbai	108	Alwar	214	Bhopal	401
Pune	109	UTTAR PRADESH			
Aurangabad	115	Aligarh	212	Gwalior	402
Kolhapur	116	Mathura	213	Jabalpur	403
RAJASTHAN		UTTARAKHAND			
Ajmer	110	<u>IIT GUWAHATI ZONE</u>			
Jaipur	111	ARUNACHAL PRADESH			
Jodhpur	112	Itanagar	301	UTTAR PRADESH	
Barmer	118	ASSAM			
Bhilwara	119	Guwahati	302	Agra	405
Pali	120	Jorhat	303	Allahabad	406
Tonk	121	Silchar	304	Gorakhpur	407
<u>IIT DELHI ZONE</u>					
DELHI		UTTAR PRADESH			
Delhi (East)	201	Agra			
Delhi (West)	202	Allahabad			
		Gorakhpur			
		Jhansi			
		Kanpur			
		Lucknow			

City/Town	Code	City/Town	Code	City/Town	Code
<u>IIT KHARAGPUR ZONE</u>		<u>IIT MADRAS ZONE</u>		HARYANA	
ANDAMAN & NICOBAR ISLANDS		ANDHRA PRADESH		Ambala	702
Port Blair	501	Nellore	601	Kurukshetra	703
ANDHRA PRADESH		Vijayawada	602	Panipat	704
Visakhapatnam	502	Tirupati	613	Rohtak	705
CHHATTISGARH		TELANGANA		Sonipat	722
Bhilai	503	Hyderabad	603	HIMACHAL PRADESH	
Bilaspur	504	Warangal	604	Palampur	706
Raipur	505	Mahabubnagar	616	Shimla	707
JHARKHAND		KARNATAKA		PUNJAB	
Bokaro	506	Bengaluru	605	Amritsar	708
Dhanbad	507	Mangaluru	606	Bathinda	709
Jamshedpur	508	Mysuru	614	Jalandhar	710
Ranchi	509	KERALA		Ludhiana	711
ODISHA		Kochi	607	Patiala	712
Bhubaneshwar	510	Kozhikode	608	UTTARAKHAND	
Rourkela	511	Thiruvananthapuram	609	Dehradun	713
SIKKIM		PUDUCHERRY		Haridwar	714
Gangtok	512	Puducherry	610	Roorkee	715
TRIPURA		TAMIL NADU		UTTAR PRADESH	
Agartala	513	Chennai	611	Bareilly	716
WEST BENGAL		Madurai	612	Gautam Budh Nagar	717
Durgapur	514	Coimbatore	615	(Noida)	
Kharagpur	515	<u>IIT ROORKEE ZONE</u>		Ghaziabad	718
Kolkata (North)	516	CHANDIGARH		Meerut	719
Kolkata (Salt Lake)	517	Chandigarh	701	Moradabad	720
Kolkata (South)	518			Varanasi	721
Malda	519				
Krishnagar	520				

19. IMPORTANT INSTRUCTIONS

- Candidates must carry a printed copy of the downloaded admit card and their original photo identity card for the examination. Only candidates having a valid admit card will be allowed to write the examination. The candidates will be given the original admit cards upon identity verification during the examination.
- The candidate's identity will be verified by invigilators as well as IIT representatives. If the identity of the candidate is in doubt, the candidate may not be allowed to appear in the examination. However, the authorities at their discretion may provisionally permit the candidate to appear in the examination after completing certain formalities. No extra time will be allowed for completing the examination in lieu of the time taken for completing these formalities.
- Impersonation in the examination is a serious offence and will lead to disqualification of the candidate from JEE (Advanced) 2017.
- Only BLACK ball point pens, pencils, downloaded admit card and an original photo identity card are allowed to be taken inside the examination hall. Candidates will **NOT** be allowed to carry any electronic devices (e.g. mobile phones, smart phones, calculators, iPad, tabs, digital watches etc.), abacus, slide rule, log books, study material of any type, geometry box, written or white (blank) paper/piece of paper, wallets, etc. to the examination hall. Candidates should not wear items containing metals such as rings, bracelet, earrings, pendants or cloths with big buttons.
- Candidates must report to the examination centres well in advance. Candidates arriving after commencement of the examination in each paper (09:00 IST for Paper 1 and 14:00 IST for Paper 2) will not be allowed.

- Candidates are required to be present in the examination hall for the entire duration of each paper. They **CANNOT** leave the examination hall before 12:00 IST for Paper 1 and before 17:00 IST for Paper 2.
- **Both Paper 1 and Paper 2 are compulsory.** Therefore, the ORS of ONLY those candidates who have appeared in both Paper 1 and Paper 2 will be evaluated/graded.

20. ONLINE DISPLAY OF ORS AND ANSWER KEYS

- The ORS will be graded and scrutinized with extreme care. The ORS of all candidates who have appeared for both Paper 1 and Paper 2 will be displayed on the online portal, along with the machine-read responses.
- In case of perceived discrepancy, candidates can seek review of the machine-read responses. The requests should be submitted online. In addition, candidates should pay review-fee at the rate of INR 500 per question to be reviewed. Detailed instructions and the mode of payment will be provided on the online portal.
- The answer keys for both Paper 1 and Paper 2 will be displayed on the online portal.

Portal for display of ORS and scanned responses	www.jeeadv.ac.in
<ul style="list-style-type: none"> • Online display of ORS and scanned responses • Request from candidates for review of scanned responses 	Wednesday, May 31, 2017, 10:00 IST to Saturday, June 3, 2017, 17:00 IST
Display of answer keys	Sunday, June 4, 2017, 10:00 IST
Receiving feedback from candidates on answer keys	Sunday, June 4, 2017, 10:00 IST to Tuesday, June 6, 2017, 17:00 IST

21. RANK LISTS

- Only candidates who appear in both Paper 1 and Paper 2 will be considered for ranking.
- The marks obtained by a candidate in Physics in JEE (Advanced) 2017 will be equal to the marks scored in Physics part of Paper 1 plus the marks scored in Physics part of Paper 2. Marks obtained in Chemistry and Mathematics will be calculated in the same way.
- The aggregate mark obtained by a candidate in JEE (Advanced) 2017 is the sum of the marks awarded to him/her in Physics, Chemistry and Mathematics.
- Rank lists is prepared based on the aggregate marks in JEE (Advanced) 2017.
- If the aggregate mark scored by two or more candidates are the same, then the following tie-break policy will be used for awarding ranks:

Higher rank will be assigned to the candidate who has obtained higher marks in Mathematics. If this does not break the tie, higher rank will be assigned to the candidate who has obtained higher marks in Physics. If there is a tie even after this, candidates will be assigned the same rank.
- Rank lists for preparatory courses (see section **27. PREPARATORY COURSES**) will be prepared for SC, ST, and PwD candidates in all categories who satisfy the prescribed relaxed criteria given below.
- A candidate who qualifies in more than one category will be considered in all the categories to which he/she belongs for the purpose of ranking.
- There will be no waiting list for ranking.

- Only candidates who score the minimum prescribed marks in each subject and in aggregate will be included in the rank list. The minimum prescribed mark varies with the category as shown in the following table.

Minimum percentage of marks prescribed for inclusion in the rank list

Rank List	Minimum percentage of marks in each subject	Minimum percentage of aggregate marks
Common rank list (CRL)	10.0	35.0
OBC-NCL rank list	9.0	31.5
SC rank list	5.0	17.5
ST rank list	5.0	17.5
Common-PwD rank list (CRL-PwD)	5.0	17.5
OBC-NCL-PwD rank list	5.0	17.5
SC-PwD rank list	5.0	17.5
ST-PwD rank list	5.0	17.5
Preparatory course rank lists	2.5	8.75

NB: CRL is the rank list in which all candidates (across all categories) will be given ranks.

22. RESULTS OF JEE (ADVANCED) 2017

- Results will be declared on Sunday, June 11, 2017 10:00 IST. Category-wise All India Ranks (AIR) of successful candidates will be available on the online portal after the results are declared. The text messages will be sent to the candidates to their registered mobile numbers.
- Individual rank cards will **NOT** be sent to candidates.
- However, qualifying in JEE Advanced (2017), filling up choices and/or participating in the joint seat allocation process do not guarantee a candidate to get admission in IITs. Admission will depend on the availability of seats during various rounds of seat allocation.

23. ARCHITECTURE APTITUDE TEST FOR B. ARCH. PROGRAM

- B. Arch. program is available at IIT Kharagpur and IIT Roorkee only. Candidates desirous of joining the B. Arch. (Architecture) program will have to PASS in the Architecture Aptitude Test (AAT). Only those candidates who have qualified in JEE (Advanced) 2017 are eligible to appear in AAT 2017.
- Syllabus for AAT is given in **Annexure-I: SYLLABI**.
- Candidates must register online at the JEE (Advanced) 2017 online portal for AAT.
- AAT will be conducted only at the seven zonal coordinating IITs.
- The test will consist of one paper of three hours duration.
- The question paper for AAT will be available only in English language.
- No separate admit card will be issued for AAT. The original admit card of JEE (Advanced) 2017 should be produced in the AAT examination hall.
- Candidates should bring their own drawing and colouring aids.
- The Joint Implementation Committee of JEE (Advanced) 2017 will decide the cut-off marks for passing AAT.
- Results of AAT will be declared on the JEE (Advanced) 2017 online portal.
- Candidates securing marks above the cut-off will be declared PASS in the test. There is no separate ranking in the AAT. There is no separate cut-off for students of any category.
- Allotment of seat will be solely based on the category-wise All India Rank in the JEE (Advanced) 2017.

Portal for AAT Registration	www.jeeadv.ac.in
Registration for AAT	Sunday, June 11, 2017, 10:00 IST to Monday, June 12, 2017, 17:00 IST
Architecture Aptitude Test	Wednesday, June 14, 2017 09:00 to 12:00 IST
Declaration of AAT Results	Sunday, June 18, 2017

Part-III

ADMISSION

24. EXAMINATIONS CONSIDERED AS EQUIVALENT TO CLASS XII

- The final examination of the 10+2 system, conducted by a Central or State Board recognized by the Association of Indian Universities (AIU).
- Intermediate or two-year Pre-University examination conducted by a Board or University recognized by the Association of Indian Universities.
- Final examination of the two-year course of the Joint Services Wing of the National Defence Academy.
- Senior Secondary School Examination conducted by the National Institute of Open Schooling with a minimum of five subjects.
- Any Public School, Board or University examination in India or in a foreign country recognized as equivalent to the 10+2 system by the AIU.
- H.S.C. vocational examination.
- A Diploma recognized by the All India Council for Technical Education (AICTE) or a State Board of Technical Education of at least 3 years duration.
- General Certificate Education (GCE) examination (London, Cambridge or Sri Lanka) at the Advanced (A) level.
- High School Certificate Examination of the Cambridge University or International Baccalaureate Diploma of the International Baccalaureate Office, Geneva.

Candidates who have completed Class XII (or equivalent) examination outside India or from a Board not specified above should produce a certificate from the AIU to the effect that the examination they have passed is equivalent to the Class XII examination.

In case the Class XII examination is not a public examination, the candidate must have passed at least one public (Board or Pre-University) examination earlier.

25. PERFORMANCE IN CLASS XII (OR EQUIVALENT) BOARD EXAMINATION

- The candidates should satisfy at least one of the following two criteria for admission to IITs:

(1) Must have secured at least 75% aggregate marks in the Class XII (or equivalent) Board examination. The aggregate marks for SC, ST and PwD candidates should be at least 65%.

(2) Must be within the category-wise top 20 percentile of successful candidates in their respective Class XII (or equivalent) board examination.

The percentile calculation will be done for the required subjects in a single academic year only.

- The marks scored in the following five subjects will be considered for calculating the aggregate marks and the cut-off marks for fulfilling the top 20 percentile criterion.
 - i. Physics
 - ii. Chemistry
 - iii. Mathematics
 - iv. A language (if the candidate has taken more than one language, then the language with the higher marks will be considered)
 - v. Any subject other than the above four (the subject with the highest marks will be considered).
- For calculation of the total marks for five subjects, if the marks awarded in a subject is **NOT** out of 100, then the marks will be scaled (up or down) to 100 so that the total aggregate marks is out of 500.

- If a Board awards only letter grades without providing an equivalent percentage of marks on the grade sheet, the candidate should obtain a certificate from the Board specifying the equivalent marks and submit it at the time of acceptance of the allocated seat. In case such a certificate is not provided, the decision taken by the Joint Implementation Committee of JEE (Advanced) 2017 will be final.
- In case any of the subjects Physics, Chemistry, Mathematics and Language are not evaluated in the final year (e.g., in a 3-year diploma course), then the marks for the same subject from the previous year/s will be used for calculating percentage of aggregate marks.
- For candidates who appeared in the Class XII (or equivalent) Board examination in 2016 but reappeared in 2017, the best of the two performances will be considered.
- If a Board gives aggregate marks considering both Class XI and Class XII examinations (in the 10+2 system), then only Class XII marks will be considered. If a Board gives aggregate marks considering the results of all three years of a 3-year diploma or courses of equivalent duration, then only the marks scored in the final year will be considered. Similarly, for Boards which follow a semester system, the marks scored in the final two semesters will be considered.
- If a Board does not give marks scored in individual subjects but gives only the aggregate marks, then the aggregate marks given by the Board will be considered as such.

Foreign candidates may follow the link for exam centres in foreign countries:

<http://www.jeeadv.ac.in/pdf/foreign.pdf>

25.1. Regarding the cut-off marks for the top 20 percentile

- The category-wise cut-off marks for the top 20 percentile are calculated based on the marks scored by all the “successful” candidates in their respective boards in the particular year.
- The cut-off marks for PwD candidates will be the same as the lowest of the cut-off marks for GEN, OBC-NCL, SC and ST categories.
- It is reiterated that top 20 percentile cut-off for the academic year 2017 will be considered for the candidates who pass the Class XII (or equivalent) examination in 2017.
- Similarly, top 20 percentile cut-off for the academic year 2016 will be considered for the candidates who pass the Class XII (or equivalent) examination in 2016.
- If a candidate passes Class XII in 2016 but writes one or a few subjects in 2017 for improvement or any other reason, then top 20 percentile cut-off for 2016 will be considered. However, if a candidate writes all the subjects in 2017, then the top 20 percentile cut-off for 2017 will be considered.
- In case a Board does not provide information about the cut-off for the top 20 percentile, the candidate will have to produce a certificate from the respective Board stating that he/she falls within the top 20 percentile of successful candidates. If the candidate fails to do so, then the cut-off marks for the CBSE will be used.

25.2. Regarding the aggregate marks of 75% (or 65% for SC, ST and PwD)

- The marks scored in the 2017 Class XII (or equivalent) Board examination will be considered for candidates who pass the Class XII examination in 2017.

- The marks scored by a candidate in the 2016 Class XII (or equivalent) Board examination will be considered for candidates who pass the Class XII examination in 2016.
- If a candidate passes Class XII (or equivalent) in 2016, but writes any of the required subjects (mentioned above) in 2017 for improvement or any other reason, then the aggregate percentage will be calculated by considering the maximum marks obtained in the required subjects.

26. JOINT SEAT ALLOCATION

- The seats across IITs, NITs, IIITs and other Govt. Funded Technical Institutes (GFTIs) will be allocated by the Joint Seat Allocation Authority (JoSAA).
- All the candidates who are eligible for admission will have to participate in the joint seat allocation process by filling in their choices of the courses. The detailed instructions for filling-in the choices and the seat allotment procedure will be made available by JoSAA through Seat Allotment Brochure.
- The schedule of the joint seat allocation will be announced separately by JoSAA 2017.
- The list of courses that will be offered by the IITs for admission for the academic year 2017-18 will be made available at the time of online filling-in of choices.

27. PREPARATORY COURSES

- The vacant seats reserved for SC, ST and PwD candidates will be allotted to the candidates of respective categories for admission to a preparatory course of 1-year duration on the basis of relaxed admission criteria (see **21. RANK LISTS**).

- Admission is given to the candidates in the preparatory course provided (i) the seats reserved for the respective category are vacant, (ii) candidates satisfy minimum norms, and (iii) candidates have not accepted a seat in the preparatory course earlier.
- All the IITs will run preparatory courses of one year duration for SC, ST and PwD candidates intended to prepare them to pursue the academic program (for session 2017-18) to which they have been allocated. At the end of this course, candidates are declared as 'pass' or 'fail'.
- On successful completion of the course, the candidates will be offered direct admission in July 2018 (Academic Year 2018-19) to the already allotted undergraduate course.
- Candidates admitted to the preparatory course are also eligible to appear in JEE (Advanced) 2018 subject to fulfilling other eligibility criteria.
- Filling-in of choices for preparatory courses is through the same online portal.

28. ADDITIONAL REQUIREMENTS FOR CERTAIN COURSES

- Those who opt for Mining Engineering, Mining Machinery Engineering, Integrated M.Sc. program in Geology or Geophysics, or Petroleum Engineering should not have any form of colour blindness. A certificate to this effect from a govt. registered medical practitioner has to be produced at the time of seat acceptance. IITs may constitute a medical board to test the validity of the candidate's medical condition.
- The standards of visual acuity with or without glasses will be adhered to strictly for candidates seeking admission to Mining Engineering as per DGMS Circular 14 of 1972. Persons with one-eyed vision are not permitted to work

underground. Candidates with these limitations are not allowed to opt for admission to Mining Engineering and Mining Machinery Engineering.

29. GENDER RESTRICTION FOR MINING ENGINEERING PROFESSION

- Section 46 (1) of the Mines Act, 1952 states that

“No woman shall, notwithstanding anything contained in any other law, be employed

(a) in any part of a mine which is below ground,

(b) in any mine above ground except between 6:00 and 19:00 hrs.”

However, “female” candidates will be admitted to Mining Engineering or Mining Machinery Engineering related courses at IIT (ISM), IIT Kharagpur and IIT (BHU).

30. LIST OF COURSES OFFERED BY IITs IN THE ACADEMIC YEAR 2016-17

The relevant courses offered by IITs in the academic year 2016-17 are given in **Annexure – III**. Some of the courses have additional requirements and these are marked as AR. The courses to be offered by the various Institutes in 2017 may vary. A few of the courses offered in 2016 may not be offered at all or may be modified (course title and/or content). It is also possible that a few new courses will be offered. The additional requirements may also change. The final list will be made available at the time of filling-in of the choices for seat allocation.

31. Grievances

All stages of JEE (Adv) 2017 will be conducted with transparency. Should there be any grievance relating to JEE (Adv) 2017, the candidate can write to the Chairman of the Zonal IIT, or to the Organizing Chairman of JEE (Adv) 2017 for clarification.

Annexure-I

SYLLABI

CHEMISTRY

Physical chemistry

General topics: Concept of atoms and molecules; Dalton's atomic theory; Mole concept; Chemical formulae; Balanced chemical equations; Calculations (based on mole concept) involving common oxidation-reduction, neutralisation, and displacement reactions; Concentration in terms of mole fraction, molarity, molality and normality.

Gaseous and liquid states: Absolute scale of temperature, ideal gas equation; Deviation from ideality, van der Waals equation; Kinetic theory of gases, average, root mean square and most probable velocities and their relation with temperature; Law of partial pressures; Vapour pressure; Diffusion of gases.

Atomic structure and chemical bonding: Bohr model, spectrum of hydrogen atom, quantum numbers; Wave-particle duality, de Broglie hypothesis; Uncertainty principle; Qualitative quantum mechanical picture of hydrogen atom, shapes of *s*, *p* and *d* orbitals; Electronic configurations of elements (up to atomic number 36); Aufbau principle; Pauli's exclusion principle and Hund's rule; Orbital overlap and covalent bond; Hybridisation involving *s*, *p* and *d* orbitals only; Orbital energy diagrams for homonuclear diatomic species; Hydrogen bond; Polarity in molecules, dipole moment (qualitative aspects only); VSEPR model and shapes of molecules (linear, angular, triangular, square planar, pyramidal, square pyramidal, trigonal bipyramidal, tetrahedral and octahedral).

Energetics: First law of thermodynamics; Internal energy, work and heat, pressure-volume work; Enthalpy, Hess's law; Heat of reaction, fusion and vapourization; Second law of thermodynamics; Entropy; Free energy; Criterion of spontaneity.

Chemical equilibrium: Law of mass action; Equilibrium constant, Le Chatelier's principle (effect of concentration, temperature and pressure); Significance of ΔG and ΔG^0 in chemical equilibrium; Solubility product, common ion effect, pH and buffer solutions; Acids and bases (Bronsted and Lewis concepts); Hydrolysis of salts.

Electrochemistry: Electrochemical cells and cell reactions; Standard electrode potentials; Nernst equation and its relation to ΔG ; Electrochemical series, emf of galvanic cells; Faraday's laws of electrolysis; Electrolytic conductance, specific, equivalent and molar conductivity, Kohlrausch's law; Concentration cells.

Chemical kinetics: Rates of chemical reactions; Order of reactions; Rate constant; First order reactions; Temperature dependence of rate constant (Arrhenius equation).

Solid state: Classification of solids, crystalline state, seven crystal systems (cell parameters $a, b, c, \alpha, \beta, \gamma$), close packed structure of solids (cubic), packing in fcc, bcc and hcp lattices; Nearest neighbours, ionic radii, simple ionic compounds, point defects.

Solutions: Raoult's law; Molecular weight determination from lowering of vapour pressure, elevation of boiling point and depression of freezing point.

Surface chemistry: Elementary concepts of adsorption (excluding adsorption isotherms); Colloids: types, methods of preparation and general properties;

Elementary ideas of emulsions, surfactants and micelles (only definitions and examples).

Nuclear chemistry: Radioactivity: isotopes and isobars; Properties of α , β and γ rays; Kinetics of radioactive decay (decay series excluded), carbon dating; Stability of nuclei with respect to proton-neutron ratio; Brief discussion on fission and fusion reactions.

Inorganic chemistry

Isolation/preparation and properties of the following non-metals: Boron, silicon, nitrogen, phosphorus, oxygen, sulphur and halogens; Properties of allotropes of carbon (only diamond and graphite), phosphorus and sulphur.

Preparation and properties of the following compounds: Oxides, peroxides, hydroxides, carbonates, bicarbonates, chlorides and sulphates of sodium, potassium, magnesium and calcium; Boron: diborane, boric acid and borax; Aluminium: alumina, aluminium chloride and alums; Carbon: oxides and oxyacid (carbonic acid); Silicon: silicones, silicates and silicon carbide; Nitrogen: oxides, oxyacids and ammonia; Phosphorus: oxides, oxyacids (phosphorus acid, phosphoric acid) and phosphine; Oxygen: ozone and hydrogen peroxide; Sulphur: hydrogen sulphide, oxides, sulphurous acid, sulphuric acid and sodium thiosulphate; Halogens: hydrohalic acids, oxides and oxyacids of chlorine, bleaching powder; Xenon fluorides.

Transition elements (3d series): Definition, general characteristics, oxidation states and their stabilities, colour (excluding the details of electronic transitions) and calculation of spin-only magnetic moment; Coordination compounds:

nomenclature of mononuclear coordination compounds, cis-trans and ionisation isomerisms, hybridization and geometries of mononuclear coordination compounds (linear, tetrahedral, square planar and octahedral).

Preparation and properties of the following compounds: Oxides and chlorides of tin and lead; Oxides, chlorides and sulphates of Fe^{2+} , Cu^{2+} and Zn^{2+} ; Potassium permanganate, potassium dichromate, silver oxide, silver nitrate, silver thiosulphate.

Ores and minerals: Commonly occurring ores and minerals of iron, copper, tin, lead, magnesium, aluminium, zinc and silver.

Extractive metallurgy: Chemical principles and reactions only (industrial details excluded); Carbon reduction method (iron and tin); Self reduction method (copper and lead); Electrolytic reduction method (magnesium and aluminium); Cyanide process (silver and gold).

Principles of qualitative analysis: Groups I to V (only Ag^+ , Hg^{2+} , Cu^{2+} , Pb^{2+} , Bi^{3+} , Fe^{3+} , Cr^{3+} , Al^{3+} , Ca^{2+} , Ba^{2+} , Zn^{2+} , Mn^{2+} and Mg^{2+}); Nitrate, halides (excluding fluoride), sulphate and sulphide.

Organic chemistry

Concepts: Hybridisation of carbon; σ and π -bonds; Shapes of simple organic molecules; Structural and geometrical isomerism; Optical isomerism of compounds containing up to two asymmetric centres, (R,S and E,Z nomenclature excluded); IUPAC nomenclature of simple organic compounds (only hydrocarbons, mono-functional and bi-functional compounds); Conformations of ethane and butane (Newman projections); Resonance and hyperconjugation; Keto-

enol tautomerism; Determination of empirical and molecular formulae of simple compounds (only combustion method); Hydrogen bonds: definition and their effects on physical properties of alcohols and carboxylic acids; Inductive and resonance effects on acidity and basicity of organic acids and bases; Polarity and inductive effects in alkyl halides; Reactive intermediates produced during homolytic and heterolytic bond cleavage; Formation, structure and stability of carbocations, carbanions and free radicals.

Preparation, properties and reactions of alkanes: Homologous series, physical properties of alkanes (melting points, boiling points and density); Combustion and halogenation of alkanes; Preparation of alkanes by Wurtz reaction and decarboxylation reactions.

Preparation, properties and reactions of alkenes and alkynes: Physical properties of alkenes and alkynes (boiling points, density and dipole moments); Acidity of alkynes; Acid catalysed hydration of alkenes and alkynes (excluding the stereochemistry of addition and elimination); Reactions of alkenes with KMnO_4 and ozone; Reduction of alkenes and alkynes; Preparation of alkenes and alkynes by elimination reactions; Electrophilic addition reactions of alkenes with X_2 , HX , HOX and H_2O (X =halogen); Addition reactions of alkynes; Metal acetylides.

Reactions of benzene: Structure and aromaticity; Electrophilic substitution reactions: halogenation, nitration, sulphonation, Friedel-Crafts alkylation and acylation; Effect of *o*-, *m*- and *p*-directing groups in monosubstituted benzenes.

Phenols: Acidity, electrophilic substitution reactions (halogenation, nitration and sulphonation); Reimer-Tiemann reaction, Kolbe reaction.

Characteristic reactions of the following (including those mentioned above): Alkyl halides: rearrangement reactions of alkyl carbocation, Grignard reactions, nucleophilic substitution reactions; Alcohols: esterification, dehydration and oxidation, reaction with sodium, phosphorus halides, $ZnCl_2$ /concentrated HCl, conversion of alcohols into aldehydes and ketones; Ethers: Preparation by Williamson's Synthesis; Aldehydes and Ketones: oxidation, reduction, oxime and hydrazone formation; aldol condensation, Perkin reaction; Cannizzaro reaction; haloform reaction and nucleophilic addition reactions (Grignard addition); Carboxylic acids: formation of esters, acid chlorides and amides, ester hydrolysis; Amines: basicity of substituted anilines and aliphatic amines, preparation from nitro compounds, reaction with nitrous acid, azo coupling reaction of diazonium salts of aromatic amines, Sandmeyer and related reactions of diazonium salts; carbylamine reaction; Haloarenes: nucleophilic aromatic substitution in haloarenes and substituted haloarenes (excluding Benzyne mechanism and Cine substitution).

Carbohydrates: Classification; mono- and di-saccharides (glucose and sucrose); Oxidation, reduction, glycoside formation and hydrolysis of sucrose.

Amino acids and peptides: General structure (only primary structure for peptides) and physical properties.

Properties and uses of some important polymers: Natural rubber, cellulose, nylon, teflon and PVC.

Practical organic chemistry: Detection of elements (N, S, halogens); Detection and identification of the following functional groups: hydroxyl (alcoholic and phenolic),

carbonyl (aldehyde and ketone), carboxyl, amino and nitro; Chemical methods of separation of mono-functional organic compounds from binary mixtures.

MATHEMATICS

Algebra

Algebra of complex numbers, addition, multiplication, conjugation, polar representation, properties of modulus and principal argument, triangle inequality, cube roots of unity, geometric interpretations.

Quadratic equations with real coefficients, relations between roots and coefficients, formation of quadratic equations with given roots, symmetric functions of roots.

Arithmetic, geometric and harmonic progressions, arithmetic, geometric and harmonic means, sums of finite arithmetic and geometric progressions, infinite geometric series, sums of squares and cubes of the first n natural numbers.

Logarithms and their properties.

Permutations and combinations, binomial theorem for a positive integral index, properties of binomial coefficients.

Matrices as a rectangular array of real numbers, equality of matrices, addition, multiplication by a scalar and product of matrices, transpose of a matrix, determinant of a square matrix of order up to three, inverse of a square matrix of order up to three, properties of these matrix operations, diagonal, symmetric and skew-symmetric matrices and their properties, solutions of simultaneous linear equations in two or three variables.

Addition and multiplication rules of probability, conditional probability, Bayes Theorem, independence of events, computation of probability of events using permutations and combinations.

Trigonometry

Trigonometric functions, their periodicity and graphs, addition and subtraction formulae, formulae involving multiple and sub-multiple angles, general solution of trigonometric equations.

Relations between sides and angles of a triangle, sine rule, cosine rule, half-angle formula and the area of a triangle, inverse trigonometric functions (principal value only).

Analytical geometry

Two dimensions: Cartesian coordinates, distance between two points, section formulae, shift of origin.

Equation of a straight line in various forms, angle between two lines, distance of a point from a line; Lines through the point of intersection of two given lines, equation of the bisector of the angle between two lines, concurrency of lines; Centroid, orthocentre, incentre and circumcentre of a triangle.

Equation of a circle in various forms, equations of tangent, normal and chord.

Parametric equations of a circle, intersection of a circle with a straight line or a circle, equation of a circle through the points of intersection of two circles and those of a circle and a straight line.

Equations of a parabola, ellipse and hyperbola in standard form, their foci, directrices and eccentricity, parametric equations, equations of tangent and normal.

Locus problems.

Three dimensions: Direction cosines and direction ratios, equation of a straight line in space, equation of a plane, distance of a point from a plane.

Differential calculus

Real valued functions of a real variable, into, onto and one-to-one functions, sum, difference, product and quotient of two functions, composite functions, absolute value, polynomial, rational, trigonometric, exponential and logarithmic functions.

Limit and continuity of a function, limit and continuity of the sum, difference, product and quotient of two functions, L'Hospital rule of evaluation of limits of functions.

Even and odd functions, inverse of a function, continuity of composite functions, intermediate value property of continuous functions.

Derivative of a function, derivative of the sum, difference, product and quotient of two functions, chain rule, derivatives of polynomial, rational, trigonometric, inverse trigonometric, exponential and logarithmic functions.

Derivatives of implicit functions, derivatives up to order two, geometrical interpretation of the derivative, tangents and normals, increasing and decreasing functions, maximum and minimum values of a function, Rolle's theorem and Lagrange's mean value theorem.

Integral calculus

Integration as the inverse process of differentiation, indefinite integrals of standard functions, definite integrals and their properties, fundamental theorem of integral calculus.

Integration by parts, integration by the methods of substitution and partial fractions, application of definite integrals to the determination of areas involving simple curves.

Formation of ordinary differential equations, solution of homogeneous differential equations, separation of variables method, linear first order differential equations.

Vectors

Addition of vectors, scalar multiplication, dot and cross products, scalar triple products and their geometrical interpretations.

PHYSICS

General

Units and dimensions, dimensional analysis; least count, significant figures; Methods of measurement and error analysis for physical quantities pertaining to the following experiments: Experiments based on using Vernier calipers and screw gauge (micrometer), Determination of g using simple pendulum, Young's modulus by Searle's method, Specific heat of a liquid using calorimeter, focal length of a concave mirror and a convex lens using $u-v$ method, Speed of sound using

resonance column, Verification of Ohm's law using voltmeter and ammeter, and specific resistance of the material of a wire using meter bridge and post office box.

Mechanics

Kinematics in one and two dimensions (Cartesian coordinates only), projectiles; Uniform circular motion; Relative velocity.

Newton's laws of motion; Inertial and uniformly accelerated frames of reference; Static and dynamic friction; Kinetic and potential energy; Work and power; Conservation of linear momentum and mechanical energy.

Systems of particles; Centre of mass and its motion; Impulse; Elastic and inelastic collisions.

Law of gravitation; Gravitational potential and field; Acceleration due to gravity; Motion of planets and satellites in circular orbits; Escape velocity.

Rigid body, moment of inertia, parallel and perpendicular axes theorems, moment of inertia of uniform bodies with simple geometrical shapes; Angular momentum; Torque; Conservation of angular momentum; Dynamics of rigid bodies with fixed axis of rotation; Rolling without slipping of rings, cylinders and spheres; Equilibrium of rigid bodies; Collision of point masses with rigid bodies.

Linear and angular simple harmonic motions.

Hooke's law, Young's modulus.

Pressure in a fluid; Pascal's law; Buoyancy; Surface energy and surface tension, capillary rise; Viscosity (Poiseuille's equation excluded), Stoke's law; Terminal

velocity, Streamline flow, equation of continuity, Bernoulli's theorem and its applications.

Wave motion (plane waves only), longitudinal and transverse waves, superposition of waves; Progressive and stationary waves; Vibration of strings and air columns; Resonance; Beats; Speed of sound in gases; Doppler effect (in sound).

Thermal physics

Thermal expansion of solids, liquids and gases; Calorimetry, latent heat; Heat conduction in one dimension; Elementary concepts of convection and radiation; Newton's law of cooling; Ideal gas laws; Specific heats (C_v and C_p for monoatomic and diatomic gases); Isothermal and adiabatic processes, bulk modulus of gases; Equivalence of heat and work; First law of thermodynamics and its applications (only for ideal gases); Blackbody radiation: absorptive and emissive powers; Kirchhoff's law; Wien's displacement law, Stefan's law.

Electricity and magnetism

Coulomb's law; Electric field and potential; Electrical potential energy of a system of point charges and of electrical dipoles in a uniform electrostatic field; Electric field lines; Flux of electric field; Gauss's law and its application in simple cases, such as, to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell.

Capacitance; Parallel plate capacitor with and without dielectrics; Capacitors in series and parallel; Energy stored in a capacitor.

Electric current; Ohm's law; Series and parallel arrangements of resistances and cells; Kirchhoff's laws and simple applications; Heating effect of current.

Biot–Savart's law and Ampere's law; Magnetic field near a current-carrying straight wire, along the axis of a circular coil and inside a long straight solenoid; Force on a moving charge and on a current-carrying wire in a uniform magnetic field.

Magnetic moment of a current loop; Effect of a uniform magnetic field on a current loop; Moving coil galvanometer, voltmeter, ammeter and their conversions.

Electromagnetic induction: Faraday's law, Lenz's law; Self and mutual inductance; RC, LR and LC circuits with d.c. and a.c. sources.

Optics

Rectilinear propagation of light; Reflection and refraction at plane and spherical surfaces; Total internal reflection; Deviation and dispersion of light by a prism; Thin lenses; Combinations of mirrors and thin lenses; Magnification.

Wave nature of light: Huygen's principle, interference limited to Young's double-slit experiment.

Modern physics

Atomic nucleus; α , β and γ radiations; Law of radioactive decay; Decay constant; Half-life and mean life; Binding energy and its calculation; Fission and fusion processes; Energy calculation in these processes.

Photoelectric effect; Bohr's theory of hydrogen-like atoms; Characteristic and continuous X-rays, Moseley's law; de Broglie wavelength of matter waves.

ARCHITECTURE APTITUDE TEST

Freehand drawing

This would comprise of simple drawing depicting the total object in its right form and proportion, surface texture, relative location and details of its component parts in appropriate scale. Common domestic or day-to-day life usable objects like furniture, equipment, etc., from memory.

Geometrical drawing

Exercises in geometrical drawing containing lines, angles, triangles, quadrilaterals, polygons, circles, etc. Study of plan (top view), elevation (front or side views) of simple solid objects like prisms, cones, cylinders, cubes, splayed surface holders, etc.

Three-dimensional perception

Understanding and appreciation of three-dimensional forms with building elements, colour, volume and orientation. Visualization through structuring objects in memory.

Imagination and aesthetic sensitivity

Composition exercise with given elements. Context mapping. Creativity check through innovative uncommon test with familiar objects. Sense of colour grouping or application.

Architectural awareness

General interest and awareness of famous architectural creations – both national and international, places and personalities (architects, designers, etc.) in the related domain.

Annexure-II

CERTIFICATE FORMATS

FORM-OBC-NCL

OBC-NCL Certificate Format

**FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES (NCL) APPLYING FOR
ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF
INDIA**

This is to certify that Shri/Smt./Kum* _____ Son/
Daughter* of Shri/Smt.* _____ of Village/
Town* _____ District/Division* _____
in the State/Union Territory _____ belongs to the
_____ community that is recognized as a backward
class under Government of India**, Ministry of Social Justice and Empowerment's
Resolution No. _____ dated _____ ***

Shri/Smt./Kum. _____ and/or _____
his/her family ordinarily reside(s) in the _____
District/Division of the _____ State/Union Territory. This is
also to certify that **he/she does NOT belong to the persons/sections (Creamy Layer)**
mentioned in Column 3 of the Schedule to the Government of India, Department of
Personnel & Training O.M. No. 36012/22/93- Estt. (SCT) dated 08/09/93 which is
modified vide OM No. 36033/3/2004 Estt.(Res.) dated 09/03/2004, further modified
vide OM No. 36033/3/2004-Estt. (Res.) dated 14/10/2008, again further modified vide OM
No.36036/2/2013-Estt (Res) dtd. 30/05/2014.

District Magistrate /
Deputy Commissioner /
Any other Competent Authority

Dated:

Seal

* Please delete the word(s) which are not applicable.

** As listed in the Annexure (for FORM-OBC-NCL)

*** The authority issuing the certificate needs to mention the details of Resolution of Government of India, in which the caste of the candidate is mentioned as OBC.

NOTE:

- (a) The term 'Ordinarily resides' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- (b) The authorities competent to issue Caste Certificates are indicated below:
 - (i) District Magistrate/ Additional Magistrate/ Collector/ Deputy Commissioner/ Additional Deputy Commissioner/ Deputy Collector/ 1st Class Stipendiary Magistrate/ Sub-Divisional magistrate/ Taluka Magistrate/ Executive Magistrate/ Extra Assistant Commissioner (not below the rank of 1st Class Stipendiary Magistrate).
 - (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
 - (iii) Revenue Officer not below the rank of Tehsildar' and
 - (iv) Sub-Divisional Officer of the area where the candidate and/or his family resides

ANNEXURE for FORM-OBC-NCL

Sl. No.	Resolution No.	Date of Notification
1	No.12011/68/93-BCC(C)	13.09.1993
2	No.12011/9/94-BCC	19.10.1994
3	No.12011/7/95-BCC	24.05.1995
4	No.12011/96/94-BCC	09.03.1996
5	No.12011/44/96-BCC	11.12.1996
6	No.12011/13/97-BCC	03.12.1997
7	No.12011/99/94-BCC	11.12.1997
8	No.12011/68/98-BCC	27.10.1999
9	No.12011/88/98-BCC	06.12.1999
10	No.12011/36/99-BCC	04.04.2000
11	No.12011/44/99-BCC	21.09.2000
12	No.12015/9/2000-BCC	06.09.2001
13	No.12011/1/2001-BCC	19.06.2003
14	No.12011/4/2002-BCC	13.01.2004
15	No.12011/9/2004-BCC	16.01.2006
16	No.12011/14/2004-BCC	12.03.2007
17	No.12011/16/2007-BCC	12.10.2007
18	No.12018/6/2005-BCC	30.07.2010
19	No. 12015/2/2007-BCC	18.08.2010
20	No.12015/15/2008-BCC	16.06.2011
21	No.12015/13/2010-BC-II	08.12.2011
22	No.12015/5/2011-BC-II	17.02.2014

FORM-SC/ST

SC/ST Certificate Format**FORM OF CERTIFICATE TO BE PRODUCED BY SCHEDULED CASTES (SC) AND SCHEDULED TRIBES (ST) CANDIDATES**

1. This is to certify that Shri/ Shirmati/ Kumari* _____ son/daughter*
of _____ of Village/Town* _____
District/Division* _____ of State/Union Territory* _____ belongs
to the _____ Scheduled Caste / Scheduled Tribe* under :-

- * The Constitution (Scheduled Castes) Order, 1950
- * The Constitution (Scheduled Tribes) Order, 1950
- * **The Constitution (Scheduled Castes) (Union Territories) Order, 1951**
- * The Constitution (Scheduled Tribes) (Union Territories) Order, 1951

[As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification Order) 1956, the Bombay Reorganisation Act, 1960, the Punjab Reorganisation Act, 1966, the State of Himachal Pradesh Act, 1970, the North Eastern Areas (Reorganisation) Act, 1971, the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976 and the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002]

- * The Constitution (Jammu and Kashmir) Scheduled Castes Order, 1956;
- * The Constitution (Andaman and Nicobar Islands) Scheduled Tribes Order, 1959, as amended by the Scheduled Castes and Scheduled Tribes Order (Amendment) Act, 1976;
- * **The Constitution (Dadara and Nagar Haveli) Scheduled Castes Order, 1962;**
- * The Constitution (Dadara and Nagar Haveli) Scheduled Tribes Order, 1962;
- * The Constitution (Pondicherry) Scheduled Castes Order, 1964;
- * The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967;
- * The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968;
- * The Constitution (Goa, Daman and Diu) Scheduled Tribes Order, 1968;
- * The Constitution (Nagaland) Scheduled Tribes Order, 1970;
- * The Constitution (Sikkim) Scheduled Castes Order, 1978;
- * The Constitution (Sikkim) Scheduled Tribes Order, 1978;
- * The Constitution (Jammu and Kashmir) Scheduled Tribes Order, 1989;
- * The Constitution (Scheduled Castes) Order (Amendment) Act, 1990;
- * The Constitution (Scheduled Tribes) Order (Amendment) Act, 1991;
- * The Constitution (Scheduled Tribes) Order (Second Amendment) Act, 1991.

2. # This certificate is issued on the basis of the Scheduled Castes / Scheduled Tribes* Certificate issued to Shri /Shrimati* _____ father/mother* of Shri /Shrimati /Kumari* _____ of Village/Town* _____ in District/Division* _____ of the State State/Union Territory* _____ who belong to the Caste / Tribe* which is recognised as a Scheduled Caste / Scheduled Tribe* in the State / Union Territory* _____ issued by the _____ dated _____.

3. Shri/ Shrimati/ Kumari * _____ and / or* his / her* family ordinarily reside(s)** in Village/Town* _____ of _____ District/Division* of the State Union Territory* of _____.

Signature: _____
Designation _____
(with seal of the Office)

Place: _____ State/Union Territory* _____
Date: _____

* Please delete the word(s) which are not applicable.
Applicable in the case of SC/ST Persons who have migrated from another State/UT.
IMPORTANT NOTES

The term "ordinarily reside(s)***" used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950. Officers competent to issue Caste/Tribe certificates:

1. District Magistrate / Additional District Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / Ist Class Stipendiary Magistrate / City Magistrate / Sub-Divisional Magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner.
2. Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
3. Revenue Officers not below the rank of Tehsildar.
4. Sub-divisional Officer of the area where the candidate and/ or his family normally reside(s).
5. Administrator / Secretary to Administrator / Development Officer (Lakshdweep Island).
6. Certificate issued by any other authority will be rejected.

Form-II
Disability Certificate

(In cases of amputation or complete permanent paralysis of limbs and in cases of blindness)

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

(See rule 4)

Recent PP size Attested Photograph (Showing face only) of the person with disability

Certificate No. _____

Date: _____

This is to certify that I have carefully examined Shri/Smt./Kum. _____

_____ son/wife/daughter of Shri _____

Date of Birth (DD/MM/YY) _____ Age _____ years, male/female

_____ Registration No. _____ permanent resident of House

No. _____ Ward/Village/ Street _____

Post Office _____ District _____

State _____, whose photograph is affixed above, and am

satisfied that:

1. he/she is a case of:
 - a. locomotor disability
 - b. blindness
 (Please tick as applicable)
2. the diagnosis in his/her case is _____
3. He/ She has _____% (in figure) _____ percent
(in words) permanent physical impairment/blindness in relation to his/her _____
(part of body) as per guidelines (to be specified).
4. The applicant has submitted the following document as proof of residence:-

Nature of Document	Date of Issue	Details of authority issuing certificate

(Signature and Seal of Authorised Signatory of notified Medical Authority)

Signature/Thumb impression of the person in whose favour disability certificate is issued.

FORM-PwD(III)

Form-III
Disability Certificate
(In cases multiple disabilities)
(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)
(See rule 4)

Recent PP size Attested Photograph (Showing face only) of the person with disability

Certificate No. _____ Date: _____

This is to certify that I have carefully examined Shri/Smt./Kum. _____
 _____ son/ wife/daughter of Shri _____
 _____ Date of Birth (DD/MM/YY) _____ Age _____ years,
 male/female _____ Registration No. _____
 permanent resident of House No. _____ Ward/Village/Street
 _____ Post Office _____ District
 _____ State _____,

whose photograph is affixed above, and are satisfied that:

1. He/she is a Case of **Multiple Disability**. His/her extent of permanent physical impairment/ disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below, and shown against the relevant disability in the table below:

S. No.	Disability	Affected Part of Body	Diagnosis	Permanent physical impairment/mental disability (in %)
1	Locomotor disability	@		
2	Low vision	#		
3	Blindness	Both Eyes		
4	Hearing impairment	£		
5	Mental retardation	X		
6	Mental-illness	X		

2. In the light of the above, his/her overall permanent physical impairment as per guidelines (to be specified), is as follows:

In figures: _____ percent

In words: _____ percent

3. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

4. Reassessment of disability is:

(i) not necessary

Or

(ii) is recommended/after _____ years _____ months, and therefore this certificate shall be valid till (DD/MM/YY) _____

@ - e.g. Left/Right/both arms/legs

- e.g. Single eye/both eyes

£ - e.g. Left/Right/both ears

5. The applicant has submitted the following document as proof of residence:

Nature of Document	Date of Issue	Details of authority issuing certificate

6. Signature and seal of the Medical Authority:

Name and Seal of Member	Name of Seal of Member	Name and Seal of the Chairperson

Signature/Thumb impression of the person in whose favour disability certificate is issued.
--

Form-IV
Disability Certificate

(In cases other than those mentioned in Forms II and III)

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

(See rule 4)

Recent PP size Attested Photograph (Showing face only) of the person with disability

Certificate No. _____ Date: _____

This is to certify that I have carefully examined Shri/Smt./Kum. _____

_____ son/ wife/daughter of Shri _____

_____ Date of Birth (DD/MM/YY) _____ Age _____ years,

male/female _____ Registration No. _____

permanent resident of House No. _____ Ward/Village/Street

_____ Post Office _____ District

_____ State _____,

whose photograph is affixed above, and am satisfied that he/she is a case of disability.

1. His/her extent of percentage of physical impairment/disability has been evaluated as per guidelines (to be specified) and is shown against the relevant disability in the table below:

S. No.	Disability	Affected Part of Body	Diagnosis	Permanent physical impairment/mental disability (in %)
1	Locomotor disability	@		
2	Low vision	#		
3	Blindness	Both Eyes		
4	Hearing impairment	£		
5	Mental retardation	X		
6	Mental-illness	X		

(Please strike out the disabilities which are not applicable.)

2. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

3. Reassessment of disability is:

a. not necessary

Or

b. is recommended/after _____ years _____ months, and therefore this certificate shall be valid till (DD/MM/YY) _____

@ - e.g. Left/Right/both arms/legs

- e.g. Single eye/both eyes

£ - e.g. Left/Right/both ears

4. The applicant has submitted the following document as proof of residence:

Nature of Document	Date of Issue	Details of authority issuing certificate

(Authorised Signatory of notified Medical Authority)

(Name and Seal)

Countersigned

{Countersignature and seal of the CMO/Medical Superintendent/Head of Government Hospital, in case the certificate is issued by a medical authority who is not a government servant (with seal)}

Signature/Thumb impression of the person in whose favour disability certificate is issued.

Note: In case this certificate is issued by a medical authority who is not a government servant, it shall be valid only if countersigned by the Chief Medical Officer of the District. Note: The principal rules were published in the Gazette of India vide notification number S.O. 908(E), dated the 31st December, 1996.

FORM-DYSLEXIC-1

FORMAT OF MEDICAL CERTIFICATE TO BE PRODUCED BY DYSLEXIC CANDIDATE

{To be obtained from any Dyslexia Association*}

Date:

PSYCHO-EDUCATION EVALUATION REPORT

Name of the candidate:

Date of Birth:

Registration in the Dyslexia Assn. (date / number):

Name of the Father/Mother/Guardian:

Name/address and Regn. No.
of the Dyslexia Association :

Physical & Neurologic Assessment: []

Psychological Assessment: []

WISC Verbal IQ:
Performance IQ:
Full Scale IQ:

Interpretation: []

Educational Assessment: []

Certified that:

1. The condition of handicap is: MILD / MODERATE / SEVERE (tick whichever is applicable)**
2. The disability is **PERMANENT** in nature.

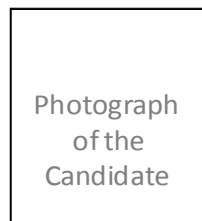
*Some Dyslexia Associations:

1. Dyslexia Trust of Kolkatta, Divya Jalan, Aruna Bhaskar 3, Dover Park, Kolkata – 700019
2. Dyslexia Association Of Andhra Pradesh (DAAP), 3-4-494/1,1st Floor, Macherla Gastrology Hospital, Reddy College Road, Barkatpura, Hyderabad, Telangana, 500027
3. Madras Dyslexia Association, 94 Park View, 1st Floor, G.N. Chetty Road, T. Nagar, Chennai – 600017
4. Maharashtra Dyslexia Association, 003, Amit Park Bldg, LJ Road, Deonar, Mumbai 400088
5. The Dyslexia Association of India, MZ-47, The Center Stage Mall, Plot No 01, Block L, Sector 18, NOIDA 201303

**Learning Disability is a permanent developmental disorder. Currently there are no standard approved methods to quantify the disorder. However the method of diagnosis is based on significant impairment in academic achievement. To avail the benefit of relaxed norm under PwD category, the candidate must come under SEVERE category.

Name of the certifying official:

Seal:



FORM-DYSLEXIC-2

***CERTIFICATE TO BE PRODUCED BY DYSLEXIC CANDIDATE FROM THE
PRINCIPAL OF THE SCHOOL/COLLEGE LAST ATTENDED**

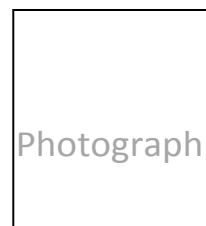
Testimonial

Date:

Name of the candidate:

Date of Birth:

Name and Address of the School/College:



Certified that Shri/Shrimati/Kumari _____
son/daughter of _____ of
_____ village/town passed his/her Class XII from this
school and as per records, availed concession under dyslexic category.

Signature with seal:

*A candidate passing Class XII or equivalent through open school system or in private mode may submit the certificate to this effect from the competent authority in the board certifying the concessions availed under dyslexia.

FORM-DS

PROFORMA

EDUCATION SCHOLARSHIP-ENTITLEMENT CARD

(To children of Armed Forces personnel killed/disabled/missing in wars/CI Operations)

The holder of this card Shri/Kum _____
born on _____ is the son/daughter of Shri/Smt _____
_____, Rank _____
_____ of Unit _____ Service
_____ Service No. _____
killed in action/permanently disabled/missing on _____
during _____ (Name of war/operation).

Name of the Guardian: _____

Address: _____

The holder is eligible for all educational concessions sanctioned by Central Government for children of Armed Forces personnel killed, missing or permanently disabled in wars/CI Operations.

Signature of the authorized Officer

Office Address:

(In case of officers, Entitlement Card for Education Scholarship should be obtained from AG/MP-59B, Army HQ, New Delhi-11, and for Personnel Below Officer Rank (PBOR) the same be obtained from the respective Record Offices.)

FORM-SCRIBE

FORMAT OF REQUEST LETTER FOR SCRIBE AND EXTRA TIME FOR PwD CANDIDATES

From

Date:

Name of the candidate: _____

Address: _____

Roll Number of JEE (Main) 2017:

Mobile No: _____ Email: _____

The Chairman

JEE (Advanced) 2017

Indian Institute of Technology, Bombay/ Delhi/ Guwahati/ Kanpur/ Kharagpur/
Madras/ Roorkee (Tick Appropriate Zone)

Dear Sir,

Subject: Requirement of SCRIBE and EXTRA TIME

I am a PwD candidate (Visually impaired/ dyslexic/ disability in the upper limbs or loss of fingers). I would like to use the service of a scribe for writing JEE (Advanced) 2017. I also request you to provide extra time to complete the paper as per the government norms. Kindly do the needful.

Thanking you,

Signature of the candidate

Signature of the Parent/Guardian
(Name of the Parent/Guardian)

Annexure-III

COURSES OFFERED IN THE ACADEMIC YEAR 2016-17

IITs

		B	BBS	BHU	D	G	GN	H	I	J	K	KGP	M	MANDI	PKD	P	R	RPR	TP	ISM	GOA	BH	JM	DWD	
B.Tech. (4 Years)																									
1	Aerospace Engineering	x									x	x	x												
2	Agricultural & Food											x													
3	Biological Sciences and Bioengineering										x														
4	Biotechnology					x											x								
5	Biotechnology & Biochemical				x							x													
6	Ceramic Engineering			x																					
7	Chemical Engineering	x		x	x	x	x	x			x	x	x				x	x			x				
8	Chemical Science and Technology					x																			
9	Civil Engineering	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
10	Computer Science & Engineering	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
11	Electrical Engineering	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
12	Electrical Engineering (Power & Automation)				x																				
13	Electronics & Communication Engineering		x			x											x				x				
14	Electronics & Electrical Communication Engineering											x													
15	Electronics & Electrical Engineering					x																			
16	Electronics & Instrumentation Engineering																				x				
17	Electronics Engineering			x																					
18	Engineering Physics	x			x	x		x	x	x	x		x				x				x				
19	Engineering Science							x																	
20	Environmental Engineering																				x				
21	Industrial and Systems Engineering											x													
22	Instrumentation Engineering											x													
23	Manufacturing Science and Engineering											x													
24	Materials Science and Engineering						x				x														
25	Mathematics and Computing				x	x																			
26	Mechanical Engineering	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
27	Metallurgical & Materials Engineering		x									x	x				x								
28	Metallurgical Engineering			x																					
29	Metallurgical Engineering & Materials Science	x						x	x																
30	Mineral Engineering																				x				
31	Mining Engineering			AR								AR									AR				
32	Mining Machinery Engineering																				AR				
33	Naval Architecture & Ocean Engineering												x												

IITs

		B	BBS	BHU	D	G	GN	H	I	J	K	KGP	M	MANDI	PKD	P	R	RPR	TP	ISM	GOA	BH	JM	DWD
34	Ocean Engineering & Naval Architecture											x												
35	Petroleum Engineering																				AR			
36	Polymer Science and Engineering																x							
37	Production and Industrial Engineering				x												x							
38	Textile Technology				x																			
B.S. (4 Years)																								
39	Chemistry	x									x													
40	Earth Sciences										x													
41	Economics										x													
42	Mathematics and Scientific Computing										x													
43	Physics										x													
B. Pharm. (4 Years)																								
44	Pharmaceutics			x																				
B. Arch. (5 Years)																								
45	Architecture											x					x							
B.Tech.-M.Tech. Dual Degree (5 Years)																								
46	Aerospace Engineering											x	x											
47	Agricultural and Food Engineering with M.Tech in any of the listed specialization											x												
48	Biochemical Engineering & Biotechnology				x																			
49	Biochemical Engineering with M.Tech. in Biochemical Engg & Biotechnology			x																				
50	Bioengineering with M.Tech. in Biomedical Technology			x																				
51	Biological Engineering												x											
52	Biotechnology & Biochemical Engineering											x												
53	Ceramic Engineering			x																				
54	Chemical Engineering				x							x	x											
55	Civil Engineering												x											
56	Civil Engineering with M. Tech. in any of the listed specialization											x												
57	Civil Engineering with M. Tech. in Structural Engineering	x		x																				
	Civil Engineering and M. Tech. in Transportation Engineering	x																						
58	Computer Science & Engineering			x	x							x	x								x			
59	Electrical Engineering												x											

IITs

		B	BBS	BHU	D	G	GN	H	I	J	K	KGP	M	MANDI	PKD	P	R	RPR	TP	ISM	GOA	BH	JM	DWD	
60	Electrical Engineering with M. Tech. in any of the listed specializations											x													
61	Electrical Engineering with M. Tech. in Communications and Signal Processing	x																							
62	Electrical Engineering with M. Tech. in Microelectronics	x																							
63	Electrical Engineering with M. Tech. in Power Electronics			x																					
64	Electronics & Electrical Communication Engineering with M. Tech. in any of the listed specializations											x													
65	Energy Engineering with M. Tech. in Energy Systems	x																							
66	Engineering Design												x												
67	Engineering Physics with M. Tech. in Engineering Physics with specialization in Nano Science	x																							
68	Industrial Engineering with M. Tech. in Industrial Engineering and Management											x													
69	Manufacturing Science & Engineering with M. Tech. in Industrial Systems Engineering & Management											x													
70	Material Science & Technology			x																					
71	Mathematics & Computing				x																				
72	Mechanical Engineering			x									x					x							
73	Mechanical Engineering and Mechanical System Design		x																						
74	Mechanical Engineering and M. Tech. in Thermal Science and Engineering		x																						
75	Mechanical Engineering with M. Tech. in any of the listed specialization											x													
76	Mechanical Engineering with M. Tech. in Computer Integrated Manufacturing	x																							
77	Metallurgical & Materials Engineering											x	x												
78	Metallurgical Engineering			x																					
79	Metallurgical Engineering & Materials Science with M. Tech. in Metallurgical Process Engineering	x																							

IITs

		B	BBS	BHU	D	G	GN	H	I	J	K	KGP	M	MANDI	PKD	P	R	RPR	TP	ISM	GOA	BH	JM	DWD
80	Metallurgical Engineering & Materials Science with M. Tech. in Ceramics & Composites	x																						
81	Mining Engineering			AR								AR												
82	Mining Safety Engineering											AR												
83	Naval Architecture & Ocean												x											
84	Ocean Engineering & Naval											x												
85	Quality Engineering Design and											x												
B.S.-M.S. Dual Degree (5 Years)																								
86	Biological Sciences												x											
87	Physics												x											
Integrated M.Tech. (5 Years)																								
88	Applied Geology																				AR			
89	Applied Geophysics																				AR			
90	Engineering Physics			x																				
91	Geological Technology																x							
92	Geophysical Technology																x							
93	Industrial Chemistry			x																				
94	Mathematics & Computing			x																	x			
Integrated M.Sc. (5 Years)																								
95	Applied Geology											AR												
96	Applied Mathematics																x							
97	Chemistry											x												
98	Economics											x												
99	Exploration Geophysics											AR												
100	Mathematics and Computing											x												
101	Physics											x												
Integrated M. Pharm. Dual Degree (5 Years)																								
102	Pharmaceutics			x																				

- NB. 1) AR: These courses have additional requirements.
2) At IIT Kharagpur, B.Tech. degrees are B.Tech.(Hons).

Annexure-IV: IMPORTANT DATES

No.	Activity	Day, Date and TIME (IST)
1.	JEE (Main) 2017 [Offline exam]	SUN, 02-04-2017
2.	Declaration of JEE (Main) 2017 Results	THU, 27-04-2017
3.	Registration for JEE (Advanced) 2017	FRI, 28-04-2017, 10:00 IST to TUE, 02-05-2017, 17:00 IST
4.	Registration with Late Fee	WED, 03-05-2017, 10:00 IST To THU, 04-05-2017, 17:00 IST
5.	Admit Card Available for Downloading	WED, 10-05-2017, 10:00 IST to SUN, 21-05-2017, 09:00 IST
6.	JEE (Advanced) 2017 Examination	SUN, 21-05-2017
7.	(A) Online Display of ORS and Scanned Responses (B) Request from Candidates for Review of Scanned Responses	WED, 31-05-2017, 10:00 IST to SAT, 03-06-2017, 17:00 IST
8.	Online Display of Answer Keys	SUN, 04-06-2017, 10:00 IST
9.	Feedback and Comments on Answer Keys from Candidates	SUN, 04-06-2017, 10:00 IST to TUE, 06-06-2017, 17:00 IST
10.	Declaration of JEE (Advanced) 2017 Results	SUN, 11-06-2017, 10:00 IST
11.	Online Registration for Architecture Aptitude Test	SUN, 11-06-2017, 10:00 IST to MON, 12-06-2017, 17:00 IST
12.	Architecture Aptitude Test (AAT)	WED, 14-06-2017
13.	Declaration of AAT Results	SUN, 18-06-2017
14.	Seat Allotment	MON, 19-06-2017 to TUE, 18-07-2017

Annexure-V: CONTACT DETAILS OF ZONE-WISE IITs

Zone Wise Institutes	Address for Communication	Phone Number and Email
South IIT Madras IIT Hyderabad IIT Palakkad IIT Tirupati	Organizing Chairman, JEE (Advanced) 2017, IIT Madras, Chennai - 600036	Phone: +91 44 22578220 Fax: +91 44 22578224 E-mail: orgjee@iitm.ac.in
West IIT Bombay IIT Gandhinagar IIT Goa IIT Dharwad	Chairman, JEE (Advanced) 2017, IIT Bombay, Powai, Mumbai - 400076	Phone: +91 22 25769093 Fax: +91 22 25720305 E-mail: jeeadv@iitb.ac.in
North-Central IIT Delhi IIT Jodhpur IIT Jammu	Chairman, JEE (Advanced) 2017 IIT Delhi, Hauz Khas, New Delhi - 110016	Phone: +91 11 26591785 Fax: +91 11 26581067 E-mail: jeeadv@admin.iitd.ac.in
North-East IIT Guwahati IIT Patna	Chairman, JEE (Advanced) 2017, IIT Guwahati, Guwahati - 781039	Phone: +91 361 2692795 Fax: +91 361 2582180 E-mail: jee@iitg.ac.in
Central IIT Kanpur IIT Indore IIT (BHU) IIT Bhilai	Chairman, JEE (Advanced) 2017, IIT Kanpur, Kanpur - 208 016	Phone: +91 512 2597335 Fax: +91 512 2590103 E-mail: jee@iitk.ac.in
East IIT Kharagpur IIT Bhubaneswar IIT (ISM)	Chairman, JEE (Advanced) 2017, IIT Kharagpur, Kharagpur - 721302	Phone: +91 3222 282102 Fax: +91 3222 278242 E-mail: jeeadv@iitkgp.ac.in
North IIT Roorkee IIT Mandi IIT Ropar	Chairman, JEE (Advanced) 2017, IIT Roorkee, Roorkee - 247667	Phone: +91 1332 284272 Fax: +91 1332 285346 E-mail: jeech@iitr.ac.in