JEE(Advanced) 2020

Information Brochure



















































© JEE (Advanced) 2020.
The information contained in the document is for the public. All rights are reserved. Addition,
deletion or modification of the document in any form is not permitted.

Table of Contents

PART-	l:	3
THE IN	ISTITUTES	3
1.	INDIAN INSTITUTES OF TECHNOLOGY	4
2.	ACADEMIC PROGRAMS	6
3.	RESERVATION OF SEATS	7
4.	DEFENCE SERVICE CANDIDATES	9
5.	FOREIGN NATIONALS	9
6.	SUPERNUMERARY SEATS FOR FEMALE CANDIDATES	10
7.	OTHER INSTITUTES	11
PART-	II :	12
THE EX	XAMINATION	12
8.	THE EXAMINATION	13
9.	SCHEDULE OF JEE (ADVANCED) 2020	13
10.	JEE (MAIN) 2020	13
11.	ELIGIBILITY CRITERIA FOR INDIAN NATIONALS FOR APPEARING IN JEE (ADVANCED) 2020	14
12.	REGISTRATION FOR JEE (ADVANCED) 2020	16
13.	REGISTRATION FEE FOR JEE (ADVANCED) 2020	17
14.	SERVICES OF A SCRIBE	18
15.	DOCUMENTS REQUIRED FOR REGISTRATION	19
16.	ADMIT CARD	21
17.	QUESTION PAPERS	22
18.	MODE OF EXAMINATION	23
19.	CITIES AND TOWNS WHERE JEE (ADVANCED) 2020 WILL BE HELD	27
20.	IMPORTANT INSTRUCTIONS	31
21.	TRANSMISSION OF CANDIDATE RESPONSES AND ONLINE DISPLAY OF ANSWER KEYS	32
22.	RANK LISTS	33
23.	RESULTS OF JEE (ADVANCED) 2020	35
24.	ARCHITECTURE APTITUDE TEST FOR B. ARCH. PROGRAM	35
PART-	III :	37
ADMI:	SSION	37
25.	EXAMINATIONS CONSIDERED AS EQUIVALENT TO CLASS XII	38
26.	PERFORMANCE IN CLASS XII (OR EQUIVALENT) BOARD EXAMINATION	39

© JEE (Advanced) 2020 - Information Brochure

27.	JOINT SEAT ALLOCATION	42
28.	PREPARATORY COURSES	43
29.	ADDITIONAL REQUIREMENTS FOR CERTAIN COURSES	44
30.	GENDER RESTRICTION FOR MINING ENGINEERING PROFESSION	44
31.	LIST OF COURSES OFFERED BY IITS IN THE ACADEMIC YEAR 2019-20	45
32.	IMPORTANT DATES	45
33.	GRIEVANCES	45
Annexur	RES	46
Annex	xure-I Syllabi	47
CHI	EMISTRY	48
MA	ATHEMATICS	55
PH	YSICS	58
AR	CHITECTURE APTITUDE TEST	61
Annex	kure-II Certificate Formats	62
FO	RM-GEN-EWS	63
FO	RM-OBC-NCL	64
FOI	RM-SC/ST	66
FOI	RM-PwD (II)	68
FOI	RM-PwD(III)	69
FOI	RM-PwD(IV)	71
FOI	RM-DYSLEXIC-1	73
FOI	RM-DYSLEXIC-2	74
FOI	RM-DS	75
FOI	RM-SCRIBE (AMANUENSIS)	76
De	claration by the Candidate in Lieu of OBC-NCL Certificate	77
De	claration by the Candidate in Lieu of GEN-EWS Certificate	78
Annex	cure-III Courses Offered in the Academic Year 2019-20	79
Annexi	ure-IV Important Dates	85
Ληηρνι	ULA-A CONTACT DETAILS OF ZONE-WISE IITS	86

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 impacts 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 programs (see **2. ACADEMIC PROGRAMS**) across IITs is through the Joint Entrance Examination (Advanced). The Joint Entrance Examination (Advanced) 2020 and the subsequent admission process to the IITs shall be governed by the rules contained in this document, read in conjunction with the Business Rules of the Joint Seat Allocation Authority (to be published separately).

ZONES, NAMES, LOCATIONS AND ABBREVIATIONS OF THE TWENTY-THREE IITS

Zone	Institute	City	Abbreviation
	Indian Institute of Technology Kharagpur	Kharagpur	IITKGP*
East Zone	Indian Institute of Technology Bhubaneswar	Bhubaneswar	IITBBS
Last Zone	Indian Institute of Technology (ISM) Dhanbad	Dhanbad	IIT (ISM)
	Indian Institute of Technology Bhilai	Bhilai	IITBH
Cartail	Indian Institute of Technology Kanpur	Kanpur	IITK*
Central Zone	Indian Institute of Technology (BHU) Varanasi	Varanasi	IIT (BHU)
20110	Indian Institute of Technology Indore	Indore	IITI
North-	Indian Institute of Technology Delhi	New Delhi	IITD*
Central	Indian Institute of Technology Jammu	Jammu	IITJM
Zone	Indian Institute of Technology Jodhpur	Jodhpur	IITJ
North-	Indian Institute of Technology Guwahati	Guwahati	IITG*
East Zone	Indian Institute of Technology Patna	Patna	IITP
N	Indian Institute of Technology Roorkee	Roorkee	IITR*
North Zone	Indian Institute of Technology Mandi	Mandi	IITMandi
20110	Indian Institute of Technology Ropar	Ropar	IITRPR
	Indian Institute of Technology Madras	Chennai	IITM*
South	Indian Institute of Technology Hyderabad	Hyderabad	IITH
Zone	Indian Institute of Technology Palakkad	Palakkad	IITPKD
	Indian Institute of Technology Tirupati	Tirupati	IITTP
	Indian Institute of Technology Bombay	Mumbai	IITB*
West	Indian Institute of Technology Dharwad	Dharwad	IITDWD
Zone	Indian Institute of Technology Gandhinagar	Gandhinagar	IITGN
	Indian Institute of Technology Goa	Goa	IITGOA

^{*} Zonal Coordinating IITs to conduct JEE (Advanced) 2020 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 or Architecture. 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 some of the IITs, students enrolled into the 4-year Bachelor's program have the option to pursue B.Tech. (Honors) and/or B.Tech. with Minors. Dual Degree students may also pursue a Minor. Further, in some IITs B. Tech. students also have the option to pursue Interdisciplinary Dual Degree, with Bachelors in parent Department and Master's in some other Department. All the above options require fulfilment of certain academic performance related criteria. The types of academic programs offered at IITs and their minimum duration are given on the next page.

However, not all the listed programs and courses are available in all the institutes. The relevant programs and courses offered in 2019-20 are given in **Annexure-III: COURSES OFFERED IN THE ACADEMIC YEAR 2019-20.** The programs that will be offered in the academic year 2020-21 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 in all the programs.

All Indian nationals who satisfy the eligibility criteria (see **Section 11**) can appear in JEE (Advanced). The successful candidates meeting the Class XII (or equivalent) performance criterion (see **Section 26**) are eligible for admission into IITs. While allotting seats, policies, as per Government of India rules, are followed depending on candidates' category and/or nationality.

TYPE OF ACADEMIC PROGRAMS OFFERED AT IITs WITH THEIR MINIMUM DURATION*

B.Tech.	Bachelor of Technology	4 years
B.S.	Bachelor of Science	4 years
B.Arch.	Bachelor of Architecture	5 years
Dual Degree B.TechM.Tech.	Dual Degree Bachelor of Technology and Master of Technology	5 years
Dual Degree B.SM.S.	Dual Degree Bachelor of Science and Master of Science	5 years
Integrated M.Tech.	Integrated Master of Technology	5 years
Integrated M.Sc.	Integrated Master of Science	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, viz., B.Des., M.Tech., M.Sc., M.Sc.Tech., 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:

- General Category belonging to Economically Weaker Section (GEN-EWS) 10% of seats in every course. The benefit of reservation will be given only to those General category candidates who satisfy the condition given in the OM No. 20013/01/2018-BC-II dated January 17, 2019 issued by the Ministry of Social Justice and Empowerment.
- Other Backward Classes belonging to the Non-Creamy Layer (OBC-NCL) 27% of seats in every course. OBCs should be listed in the current updated central list of OBCs (http://www.ncbc.nic.in). OBCs present in the state list but not covered in

the central list of OBCs (as per the list in http://www.ncbc.nic.in) are not eligible to claim the reservation. The criteria for Non-Creamy Layer (OBC-NCL) will be as per the notification of Government of India.

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 all candidates are 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 (websites: http://www.socialjustice.nic.in and https://ncst.nic.in).

• Persons with Disability (PwD) - 5% seats in each of OPEN, GEN-EWS, 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 GEN-EWS, OBC-NCL, SC, ST and PwD categories will be declared as qualified on the basis of a relaxed criterion (see **22. RANK LISTS**).

Unfilled seats reserved under GEN-EWS and OBC-NCL category will be dereserved 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) 2020 examination], will be final and shall remain same in JEE (Advanced) 2020 examination and requests for change of category will NOT be entertained.

Candidates must note that the benefit of reservation will be given to them subject to verification of documents. If it is discovered at any stage that a candidate has used a false / fake / incorrect document, or has furnished false, incorrect or incomplete information, in order to avail the benefit of reservation, then such a candidate shall be excluded from all admission processes. In case such a candidate has already been given admission, then the admission shall stand cancelled.

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) 2020 (see **22. RANK LISTS**).

5. FOREIGN NATIONALS

Candidates who are **NOT** citizens of India (by birth or naturalized) and **have studied** (are studying) abroad at 10+2 level or equivalent at the time of registering for JEE(Advanced)2020, are treated as foreign nationals. Seats allotted to such foreign nationals are supernumerary with a cap of 10% of total number of seats in every course.

Foreign nationals are outside the ambit of reservation of seats under the GEN-EWS, OBC-NCL, SC, ST and PwD (Persons with Disability) categories as specified herein. These candidates are **NOT** required to write JEE(Main)2020 and may register for JEE(Advanced)2020 directly subject to fulfilment of other eligibility criteria. The relevant information for foreign candidates is available at the following link:

https://jeeadv.ac.in/foreign.php

The seats allotted to candidates who have studied (are studying) in India at 10+2 level or equivalent AND are not citizens of India (by birth or naturalized) BUT are OCI/PIO card holders (OR their parents are OCI/PIO card holders OR their parents are Indian nationals) at the time of registering for JEE(Advanced) 2020, will be under OPEN category, but not supernumerary. These candidates are outside the ambit of reservation of seats under the GEN-EWS, OBC-NCL, SC, ST and PwD categories as specified herein. These candidates are also required to write JEE(Main) 2020 and qualify for JEE(Advanced) 2020 under the OPEN category.

However, the seats allotted to candidates who have studied (are studying) in India at 10+2 level or equivalent AND are not citizens of India (by birth or naturalized) AND are NOT OCI/PIO card holders (AND their parents are also NOT OCI/PIO card holders AND their parents are also NOT Indian nationals) at the time of registering for JEE(Advanced) 2020, will be supernumerary. These candidates are outside the ambit of reservation of seats under the GEN-EWS, OBC-NCL, SC, ST and PwD categories as specified herein. These candidates are also required to write JEE(Main) 2020 and qualify for JEE(Advanced) 2020 under the OPEN category.

6. SUPERNUMERARY SEATS FOR FEMALE CANDIDATES

A decision has been taken at the level of the IIT Council to, inter alia, improve the gender balance in the undergraduate programs at the IITs to at least 20% in 2020-21

by creating supernumerary seats specifically for female candidates, without any reduction in the number of seats that was made available to gender neutral candidates in the previous academic year (i.e. academic year 2019-2020). Accordingly, to achieve this objective, and in accordance with the directions of the Ministry of Human Resource Development, Government of India, supernumerary seats will thus be created and offered to female candidates for improving the gender balance in the undergraduate programs in IITs. These supernumerary seats will be offered (a) to only those female candidates who are declared qualified in JEE (Advanced) - 2020, and, (b) strictly based on the performance in JEE (Advanced) - 2020.

The reservation policy as per Government of India norms as existing at present will be applicable to these supernumerary seats as well. The detailed procedure for implementation of the above shall be set out in the Business Rules of the Joint Seat Allocation Authority (JoSAA), 2020.

7. OTHER INSTITUTES

Some 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 Bareli
- Indian Institute of Petroleum & Energy, Visakhapatnam

Candidates should contact these institutes directly for additional information regarding admission.

PART-II: THE EXAMINATION

8. THE EXAMINATION

The Joint Entrance Examination (Advanced) 2020 [JEE (Advanced) 2020] will be conducted by the seven Zonal Coordinating (ZC) IITs under the guidance of the Joint Admission Board (JAB) 2020. The performance of a candidate in JEE (Advanced) 2020 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 in the academic year 2020-21. The decisions of the JAB 2020 will be final in all matters related to JEE (Advanced) 2020 and admission to IITs in the academic year 2020-21.

9. SCHEDULE OF JEE (ADVANCED) 2020

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

Date of Examination	Sunday, 17 May 2020
Paper 1	09:00 IST to 12:00 IST
Paper 2	14:30 IST to 17:30 IST

It may be noted that the schedule will remain the same even if 17 May 2020 is declared a public holiday.

All PwD candidates are eligible for one hour compensatory time, i.e., the end time will be 13:00 IST for Paper 1 and 18:30 IST for Paper 2. Please see clause 15 for additional information.

10. **JEE (MAIN) 2020**

Indian nationals who wish to appear in JEE (Advanced) 2020 must write B.E./B.Tech. paper of JEE (Main) 2020 which will be held in the month of January 2020 and April 2020. Further information about JEE (Main) 2020 may be obtained from the website https://jeemain.nta.nic.in.

11. ELIGIBILITY CRITERIA FOR INDIAN NATIONALS FOR APPEARING IN JEE (ADVANCED) 2020

All the candidates <u>must simultaneously fulfil each and every one of the following</u> <u>five criteria</u> to appear in JEE (Advanced) 2020.

<u>Criterion 1 – Performance in JEE (Main) 2020</u>: Candidates should be among the top 2,50,000* successful candidates (including all categories) in B.E./B.Tech. Paper of JEE (Main) 2020.

The percentages of various categories of candidates to be shortlisted are: 10% for GEN-EWS, 27% for OBC-NCL, 15% for SC, 7.5% for ST and the remaining 40.5% is OPEN for all. Within each of these five categories, 5% horizontal reservation is available for PwD candidates.

The following table shows the order to be followed while choosing top 2,50,000* candidates in various categories based on the performance in B.E./B.Tech. Paper of JEE (Main) 2020.

Category-wise distribution of top 2,50,000* candidates (Criterion 1)

Order	Category	Number of "	Top" candidates
1	OPEN	96187	101250
2	OPEN-PwD	5063	101250
3	GEN-EWS	23750	25000
4	GEN-EWS-PwD	1250	25000
5	OBC-NCL	64125	67500
6	OBC-NCL-PwD	3375	67500
7	SC	35625	27500
8	SC-PwD	1875	37500
9	ST	17812	18750
10	ST-PwD	938	10/30

^{*}The total number of candidates can be slightly greater than 2,50,000 in the presence of "tied" ranks/scores in any category.

<u>Criterion 2 – Age limit</u>: Candidates should have been born on or after October 1, 1995. Five years relaxation is given to SC, ST and PwD candidates, i.e., these candidates should have been born on or after October 1, 1990.

<u>Criterion 3 – Number of attempts</u>: A candidate can attempt JEE (Advanced) maximum of two times in two consecutive years.

<u>Criterion 4 – Appearance in Class XII (or equivalent) examination</u>: A candidate should have appeared for the Class XII (or equivalent) examination for the first time in either 2019 or 2020 with Physics, Chemistry and Mathematics as compulsory subjects.

However, if the examination Board of Class XII (or equivalent) declares the results for the academic year 2017-18 after June 2018, then the candidates of that board who appeared for their Class XII exam in 2018 are also eligible to appear in JEE (Advanced) 2020, provided they meet the other eligibility criteria. In case, the examination Board of Class XII (or equivalent) declared the results for the academic year 2017-18 before June 2018 but the result of a particular candidate was withheld, then the candidate will not be eligible to appear in JEE (Advanced) 2020.

<u>Criterion 5 – Earlier admission at IITs</u>: A candidate should **NOT** have been admitted in an IIT irrespective of whether or not he/she continued in the program **OR** accepted an IIT seat by reporting at a reporting centre in the past. Candidates whose admission at IITs was cancelled after joining any IIT are also **NOT** eligible to appear in JEE (Advanced) 2020.

Candidates who have been admitted to a preparatory course in any of the IITs for the first time in 2019 can appear in JEE (Advanced) 2020.

The candidates who paid seat acceptance fee in 2019 but (i) did not report at any reporting centre OR, (ii) withdrew before the last round of seat allotment, OR, (iii) had their seat cancelled (for whatever reason) before the last round of seat allotment

for IITs, during the joint seat allocation in 2019, are eligible to appear in JEE (Advanced) 2020.

However, in all of the above cases, the candidate is also required to fulfil the conditions mentioned from Criterion 1 to Criterion 4.

Eligibility criteria for foreign candidates can be found at: https://jeeadv.ac.in/foreign.php

12. REGISTRATION FOR JEE (ADVANCED) 2020

Eligibility: All Indian nationals must simultaneously satisfy each and every one of the five eligibility criteria [see 11. ELIGIBILITY CRITERIA FOR APPEARING IN JEE (ADVANCED) 2020]. 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 MUST register for appearing in JEE (Advanced) 2020. Registration is only through the online registration portal where detailed instructions for registration will be provided.

For online registration	https://jeeadv.ac.in
Online registration begins	Friday, May 1, 2020 10:00 IST
Online registration closes	Wednesday, May 6, 2020 17:00 IST
Last date for fee payment for registered candidates	Thursday, May 7, 2020 upto 17.00 IST

Registration Procedure: The procedure consists of three steps.

Step-1: After login, provide the basic data and the choices of the cities for the examination [See 19. CITIES AND TOWNS WHERE JEE (ADVANCED) 2020 WILL BE HELD]. The candidate will have the option of adding an additional mobile phone number and an additional email id, in addition to the

number(s) provided during JEE (Main) 2020 registration. Please note that all the correspondence regarding JEE (Advanced) 2020 will be sent to the registered mobile number by SMS and/or to the registered email id by email. Candidates are therefore, advised to ensure that the correct mobile number and email address are entered by them.

Step-2: Upload the scanned copies of all requisite documents [See 15. DOCUMENTS REQUIRED FOR REGISTRATION].

Step-3: Pay registration fee [See 13. REGISTRATION FEE FOR JEE (ADVANCED) 2020]. Registration fee is NEITHER refundable NOR transferable.

Foreign candidates may check the link: https://jeeadv.ac.in/foreign.php

13. REGISTRATION FEE FOR JEE (ADVANCED) 2020

	Registration Fee for Examination Centres in India	
	Female Candidates (all categories)	INR 1400
Indian Nationals	SC, ST, PwD Candidates	INR 1400
	All Other Candidates	INR 2800
	Candidates from SAARC countries	USD 75
Foreign Nationals	Candidates from Non-SAARC countries	USD 150

	Registration Fee for Examination Centres in Foreign countries	
Indian Nationals	All Indian Nationals	USD 75
	Candidates from SAARC countries	USD 75
Foreign Nationals	Candidates from Non-SAARC countries	USD 150

- The registration fee shown above DOES NOT INCLUDE service charges, processing fees and any other charges that the payment gateway/banks may levy.
- Detailed instructions related to the payment of registration fee will be provided at the time of JEE (Advanced) 2020 registration on the online registration portal.

14. SERVICES OF A SCRIBE

- The services of a scribe (amanuensis) are available ONLY to those PwD candidates who are visually impaired OR dyslexic (severe) OR have disability in the upper limbs or have lost fingers / hands thereby preventing them from properly operating the Computer Based Test platform as per office memorandum of the Ministry of Social Justice and Empowerment F.No. 34-02/2015-DD-III dated August 29, 2018. PwD candidates who desire to avail the services of a scribe need to opt for this during the online registration of JEE (Advanced) 2020.
- To avail the services of scribe, the candidate should request the Chairman, JEE (Advanced) 2020, 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 copy of the certificates of Dyslexic candidate (FORM- DYSLEXIC 1 and DYSLEXIC 2), whichever is applicable, must be uploaded at the time of online registration for JEE (Advanced) 2020. 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 Centre, to provide a panel of scribes (amanuenses).
 Scribes will be students of Class XI from the science stream with Mathematics as one of the subject. The PwD/dyslexic (severe) 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 panel of scribes one day prior to the
 examination i.e., on Saturday, 16 May 2020, in the presence of the IIT
 Representatives (IRs), Presiding Officer (PO) and an Invigilator, and choose
 her/his scribe.
- If it is found at any stage that a candidate has used the services of a scribe but does not possess the extent of disability that warrants the use of a scribe, she/he will be excluded from the process of evaluation, ranking and admission. In case such a candidate has already been admitted to any IIT, her/his admission will be cancelled.

15. 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) 2020. 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 2019 or whose Board declared the Class XII (or equivalent examination) result after June 2018).
- (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 GEN-EWS category

GEN-EWS certificate (FORM-GEN-EWS) should have been issued on or after April 01, 2020 in consonance with the latest guidelines of the Government of India. If any GEN-EWS candidate fails to collect the GEN-EWS certificate

(issued on or after April 01, 2020) before online registration, he/she may upload a declaration (Declaration in Lieu of GEN-EWS Certificate) to that effect.

For Candidates seeking admission under the OBC-NCL category

OBC-NCL certificate (FORM-OBC-NCL) should have been issued on or after April 01, 2020 in consonance with the latest guidelines of the Government of India. If any OBC-NCL candidate fails to collect the OBC-NCL certificate (issued on or after April 01, 2020) before online registration, he/she may upload a declaration (Declaration in Lieu of OBC-NCL Certificate) to that effect. Visit http://www.ncbc.nic.in for latest guidelines and updates on 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), as per the latest guidelines of the Government of India.

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' under Dyslexia category to enable the candidate to get the benefit of PwD category.

Individual IITs constitute medical boards at the time of admission to test the candidate's level of disability. The opinion of such medical board shall be final and on this basis, the benefit of PwD category may be allowed or withheld.

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.

Foreign candidates may check the link:

https://jeeadv.ac.in/foreign.php

For candidates whose Class XII examination Board is outside India or not listed in Section 25 (See 25. 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.

16. ADMIT CARD

• Candidates who successfully registered for JEE (Advanced) 2020 can download the admit card from the online registration portal: https://jeeadv.ac.in

Portal for downloading admit card	https://jeeadv.ac.in
	Tuesday, May 12, 2020, 10:00 IST
Admit card downloading schedule	to
	Sunday, May 17, 2020, 09:00 IST

• The admit card will bear the following details of the candidate: Name, Roll number for JEE (Advanced) 2020, photograph, signature, date of birth, address for correspondence and category.

- 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) 2020 of the respective zonal coordinating IIT.
- In case of any problem in downloading the admit card, the candidate should immediately contact the Chairman, JEE (Advanced) 2020 of their respective zonal coordinating IIT.
- A printout of the downloaded admit card along with an original and valid photo identity card (any one of Aadhaar, School ID, Driving License, Voter ID, Passport, PAN Card) MUST be produced at the time of examination, without which, the candidate will not be allowed to appear for the examination.

17. QUESTION PAPERS

- JEE (Advanced) 2020 will consist of 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 questions designed to test comprehension, reasoning and analytical ability of candidates.
- Negative marks may be awarded for incorrect answers for some of the questions.
 Details of the marking scheme will be provided in the "Instructions to Candidates" section at the time of examination.
- The candidates must carefully read and adhere to the detailed instructions given in the question papers available at the time of examination.

- The question papers will be in English and Hindi languages. The candidates will have the option to choose (and also switch between) the preferred language anytime during the examination.
- Although sufficient care will be taken for the correctness of questions, in the event that a question(s) needs to be dropped, full marks for that question(s) will be awarded to ALL candidates.

18. MODE OF EXAMINATION

The JEE (Advanced) 2020 examination will be conducted only in the Computer Based Test (CBT) mode. To attain familiarity with the CBT mode candidates are advised to take mock tests available on the website https://jeeadv.ac.in.

Every candidate will be allotted a computer terminal (node) at the test centre. The welcome login screen for the CBT will display photograph of the candidate allotted the particular computer. For login, the candidate will have to enter his/her JEE (Advanced) 2020 roll number as login-id and enter his/her date of birth as password (e.g. if the candidate's date of birth is April 6, 2001, the password he/she need to enter would be 06042001 (**ddmmyyyy** format)).

After login, the candidate would be able to see the detailed instructions for the examination. Candidates are advised to go through the instructions very carefully regarding the type of questions and marking scheme. At the designated time of start of the examination, the candidates will be able to proceed and see the questions on the computer screen. Candidates will have the option to choose (and also switch/toggle between) his/her preferred language (English or Hindi) during the entire period of the examination.

The keyboard attached to the computer, if any, will be disabled during the entire duration of the examination. Depending on the type of question, the answers to questions can either be entered by clicking on the virtual on-screen keyboard (numeric or otherwise) using the computer mouse or by clicking on the chosen option(s) using the computer mouse. Candidates will have the option to change/modify answers already entered anytime during the entire duration of the examination.

In case the computer/mouse allotted to any candidate malfunctions anytime during the test, he/she will be immediately allotted another computer system and the time lost due to this will be adjusted in the server so as to give the candidate the full allotted time of 3 hours (180 minutes) [4 hours (240 minutes) for PwD candidates] to answer the questions in each paper.

18.1 General Instructions for CBT:

- 1. Total duration of each paper of JEE (Advanced) 2020 examination is of 3 hours (180 minutes) [4 hours (240 minutes) for PwD candidates] duration.
- 2. The on-screen computer clock counter of every candidate will be set at the server. The countdown timer in the top right side of computer screen will display the time remaining (in minutes) available for the candidate to complete the examination. When the timer reaches zero, the examination will end by itself. Candidate will not be required to end or submit the examination.
- 3. The Question Palette displayed on the right side of screen will show the status of each question using one of the following symbols:
 - 1 You have not visited the question yet.
 - 2 You have not answered the question.
 - You have answered the question.
 - 4 You have NOT answered the question, but have marked the question for review.
 - The question(s) "Answered and Marked for Review" will be considered for evaluation.

- 4. The "Marked for Review" status for a question indicates that candidate would like to have a relook at that question again. A candidate has the option of answering a question and simultaneously marking the question "Marked for Review"; for those cases the answers will be considered for evaluation. However, if a candidate has simply put "Marked for Review" for a question without answering it, the corresponding question marked for review without an answer will not be considered for evaluation. It may be noted that a candidate can return to any "Marked for Review" question at any time during the examination by clicking on the corresponding question number icon displayed on the Question Palette of the corresponding section.
- 5. Candidate can click on the ">" arrow which appears to the left of question palette to collapse the question palette thereby maximizing the question viewing window. To view the question palette again, candidate can click on "<" which appears on the right side of question window.
- 5. Candidate can change the preferred language (English or Hindi) for displaying the questions, anytime during the duration of the examination, by clicking on the dropdown menu in "View In" icon provided on the right side of the screen.
- 6. Candidate can click on to navigate to the bottom and to navigate to the top of the question area, without scrolling. Using the computer mouse the candidate can scroll up and down the question viewing area for viewing the entire question.
- 7. The full paper can be viewed by clicking the "Question Paper" icon on the top right corner of the screen.
- **8.** *Scribble Pads* for doing rough work/calculations will be provided to the candidates at the start of each paper. The *Scribble Pads* would have a Header page for the candidate to write down his/her *Name* and *Registration Number*. Candidates are allowed to take their signed *Scribble Pads* back with them at the end of each paper of the examination.

18.2 Navigating to a Question:

To navigate between sections of the question paper, candidate needs to click on the preferred section from all the displayed sections.

To navigate between questions within a section, candidate needs to do the following:

- a. Click on the question number in the Question Palette at the right of the screen to go to that numbered question directly. Note that using this option does NOT save the answer to the currently displayed question.
- **b.** Click on "Save & Next" to save the answer of any question. Clicking on "Save & Next" will save the answer for the current question and the next question will be displayed on the candidate's computer screen.
- c. Click on "Mark for Review & Next" to mark a question for review (without answering it) and proceed to the next question.

18.3 Answering a Question:

- 1. Procedure for answering a multiple-choice type question:
 - a) To select the option(s), click on the corresponding button(s) of the option(s).
 - b) To deselect the chosen answer, click on the button of the chosen option again or click on the "Clear Response" button.
 - c) To save the answer, the candidate MUST click on the "Save & Next" button.
 - d) To mark the question for review (without answering it), click on the "Mark for Review & Next" button.
- 2. Procedure for answering questions that require inputs from on-screen virtual keyboard (numeric or otherwise):
 - a) Candidate will have to use the on-screen virtual keyboard (that would be displayed just below the question statement of these type of questions)

and the attached computer mouse to enter his/her answer in the space provided for answer.

- b) The answer can be changed, if required, anytime during the test. To save the answer, the candidate MUST click on the "Save & Next" button.
- c) To mark the question for review (without answering it), click on the "Mark for Review & Next" button.

Candidate will have the option to change previously saved answer of any question, anytime during the entire duration of the test. To change the answer to a question that has already been answered, first select the corresponding question from the Question Palette, then click on "Clear Response" to clear the previously entered answer and subsequently follow the procedure for answering that type of question.

18.4 Navigating through sections:

- 1. Sections in the question paper are displayed on the top bar of the screen. Questions in a section can be viewed by clicking on the section name. The section in which candidate is currently viewing will be highlighted.
- 2. After clicking the "Save & Next" button on the last question for a section, candidate will automatically be taken to the first question of the next section.
- 3. Candidate can shuffle between sections and questions within sections anytime during the examination as per the convenience only during the time stipulated.
- 4. Candidate can view the corresponding section summary as part of the legend that appears in every section above the question palette.

19. CITIES AND TOWNS WHERE JEE (ADVANCED) 2020 WILL BE HELD

JEE (Advanced) 2020 will be held in selected cities and towns in India. Candidates have to compulsorily choose six cities / towns from a zone of their choice at the time of online registration. **Efforts will be made to allot the city / town from among**

the candidate's choice but a different city / town in the same/other zone may be allotted under exceptional circumstances. Request for change of city / town will NOT be entertained under any circumstances. A tentative list of cities/towns where JEE (Advanced) 2020 examination will be held is given in the following table. The final list of examination cities/towns would be notified in the registration portal before the start of the online JEE (Advanced) 2020 registration.

TENTATIVE LIST OF CITIES AND TOWNS FOR JEE (ADVANCED) 2020

('ifx// L'oxyn	Code
City/Town	
IIT BOMBAY ZO	UNE
GOA	101
Panaji	101
CILLADAT	
GUJARAT Ahmedabad	102
	102
Bhavnagar Bhuj	103
Gandhinagar	104
	105
Rajkot Surat	107
Vadodara	107
v adodara	108
KARNATAKA	
Belgavi (Belgaum)	109
Bengaluru	110
Dharwad	111
Gulbarga	112
Hubballi (Hubli)	113
Mangaluru	114
Mysuru	115
Shimoga	116
Similogu	110
MAHARASHTRA	1
Amravati	117
Aurangabad	118
Kolhapur	119
Mumbai	120
Nagpur	121
Nanded	122
Nashik	123
Navi Mumbai	124
Pune	125
Thane	126
Vasai	126 127
	127
Vasai IIT DELHI ZO DELHI NCR	127 NE
Vasai IIT DELHI ZO DELHI NCR Delhi (East)	127 NE
Vasai IIT DELHI ZO DELHI NCR Delhi (East) Delhi (North)	127 NE 201 202
Vasai IIT DELHI ZO DELHI NCR Delhi (East) Delhi (North) Delhi (South)	127 NE 201 202 203
Vasai IIT DELHI ZO DELHI NCR Delhi (East) Delhi (North) Delhi (South) Delhi (West)	127 NE 201 202 203 204
Vasai IIT DELHI ZO DELHI NCR Delhi (East) Delhi (North) Delhi (South) Delhi (West) Faridabad	127 NE 201 202 203 204 205
Vasai IIT DELHI ZO DELHI NCR Delhi (East) Delhi (North) Delhi (South) Delhi (West)	127 NE 201 202 203 204 205 206
Vasai IIT DELHI ZO DELHI NCR Delhi (East) Delhi (North) Delhi (South) Delhi (West) Faridabad Greater Noida Gurugram	127 NE 201 202 203 204 205 206 207
Vasai IIT DELHI ZO DELHI NCR Delhi (East) Delhi (North) Delhi (South) Delhi (West) Faridabad Greater Noida	127 NE 201 202 203 204 205 206

City/Town	Code
JAMMU and KAS	
Jammu	209
Janniu	207
RAJASTHAN	
Ajmer	210
Alwar	211
Bikaner	212
Jaipur	213
Jodhpur	214
Sikar	215
Udaipur	216
•	
IIT GUWAHAT	TI ZONE
ARUNACHAL PI	RADESH
Naharlagun	301
ASSAM	
Dibrugarh	302
Guwahati	303
Jorhat	304
Silchar	305
Tezpur	306
DITTAD	
BIHAR	207
Arrah	307
Aurangabad	308
Bhagalpur	309
Bihar Sharif	310
Chhapra	311
Darbhanga	312
Gaya	313
Muzaffarpur	314
Patna	315
Purnea	316
Samastipur	317
MANIPUR	
Imphal	318
Ппрпаг	310
MEGHALAYA	
Shillong	319
~·····································	317
MIZORAM	
Aizawl	320
NAGALAND	<u> </u>
Dimapur	321

City/Town	Code		
City 10 Wil	Couc		
SIKKIM			
Gangtok	322		
TRIPURA			
Agartala	323		
C			
WEST BENGAL	•		
Siliguri	324		
IIT KANPUR ZO	ONE		
MADHYA PRADESI	I		
Bhopal	401		
Indore	402		
Jabalpur	403		
Ujjain	404		
UTTAR PRADESH	T		
Gorakhpur	405		
Jhansi	406		
Kanpur	407		
Lucknow	408		
Prayagraj(Allahabad)	409		
Varanasi	410		
TIMED ADAD			
UNITED ARAB EMIRATES			
Dubai	451		
IIT KHARAGPUR			
ANDAMAN & NICO	BAR		
ISLANDS	T		
Port Blair	501		
ANDIDA DDA DEGE	<u> </u>		
ANDHRA PRADESH			
Visikhapatnam	502		
Vizianagaram	503		
CHHATTISGARH			
Bhilai	504		
Bilaspur	505		
Raipur	506		
	200		
JHARKHAND			
Bokaro	507		
Dhanbad	508		

© JEE (Advanced) 2020 - Information Brochure

3
}
}
}
}
j
i
<u> </u>
)
5
1
3
)
)
2
ļ. Š
i
j j
<u>, </u>
5
3
3
3
3
3
2

	1
City/Town	Code
Kannur	616
Kasaragod	617
Kochi	618
Kollam	619
Kottayam	620
Kozhikode	621
Malappuram	622
Palakkad	623
Thiruvananthapuram	624
Thrissur	625
PUDUCHERRY	T
Puducherry	626
TAMIL NADU	ı
Chennai	627
Coimbatore	628
Madurai	629
Salem	630
Tiruchirapalli	631
Tirunelveli	632
Vellore	633
TELANGANA	1
Hyderabad	634
Karimnagar	635
Khammam	636
Kodad	637
Mahabubnagar	638
Nizamabad	639
Warangal	640
CTVC + DODE	
SINGAPORE	l
Singapore	651
IIT ROORKEE Z	ONE
CHANDIGARH	ONL
Chandigarh	701
C.imini Guill	, 01
HARYANA	<u>I</u>
Ambala	702
	, 02

City/Town	Code			
Hisar	703			
Karnal	704			
Kurukshetra	705			
Yamunanagar	706			
<u> </u>				
HIMACHAL PRA	HIMACHAL PRADESH			
Hamirpur	707			
Kangra	708			
Shimla	709			
MADHYA PRAD	ESH			
Gwalior	710			
PUNJAB				
Amritsar	711			
Bathinda	712			
Jalandhar	713			
Ludhiana	714			
Mohali	715			
Patiala	716			
UTTARAKHAND				
Dehradun	717			
Haldwani	718			
Haridwar	719			
Roorkee	720			
UTTAR PRADES	 H			
Agra	721			
Aligarh	722			
Bareilly	723			
Ghaziabad	724			
Mathura	725			
Meerut	726			
Moradabad	727			
Muzaffarnagar	728			
	.20			
NEPAL	l .			
Kathmandu	751			
	1.01			

20. IMPORTANT INSTRUCTIONS

- Candidates MUST carry a printed copy of the downloaded admit card and their
 original and valid photo identity card (any one of Aadhaar, School ID, Driving
 License, Voter ID, Passport, PAN Card) for the examination. Only candidates
 having a valid admit card and photo identity card will be allowed to write 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. In such cases where the candidate is permitted to provisionally appear in the examination, the decision of the Organising Chairman, JEE (Advanced) on the issue, shall be final.
- Impersonation and / or use of unfair means in the examination is a serious offence
 and will lead to disqualification of the candidate from JEE (Advanced) 2020 and
 all admission related processes. It may also lead to legal action against such
 candidates.
- only pens, pencils, drinking water in transparent bottle, 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, usb drives, 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 are advised not to wear items containing metals such as rings, bracelet, earrings, pendants or clothes with big buttons.

- Candidates must report to the examination centres well in advance, and carry out the requisite formalities which will be mentioned in the admit card. Examination centres shall remain open from 07:30 IST. Candidates arriving at the examination centre after commencement of the examination in each paper (09:00 IST for Paper 1 and 14:30 IST for Paper 2) will not be allowed to take the examination under any circumstances.
- 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 17:30 IST for Paper 2.
- Both Paper 1 and Paper 2 are compulsory. Therefore, the responses of ONLY those candidates who have appeared in both Paper 1 and Paper 2 will be evaluated/graded.

21. TRANSMISSION OF CANDIDATE RESPONSES AND ONLINE DISPLAY OF ANSWER KEYS

- The responses of the candidates who have appeared for both Paper 1 and Paper 2, recorded during the exam, will be available for them to view, download and print from the JEE(Advanced) 2020 candidate portal (to visit candidate portal, go to https://jeeadv.ac.in).
- Provisional answer key is ONLY tentative and is subject to change.
- The provisional answer keys for both Paper 1 and Paper 2 will be displayed on the JEE(Advanced) 2020 online portal. After the display of provisional answer keys, the candidates may submit their feedback, if any, on the candidate portal, after considering which a final answer key will be displayed on the website, as per the following schedule and the marks will be awarded in accordance with the final answer key:

Copy of candidate responses to be available on the JEE (Advanced) 2020 website	Wednesday, May 20, 2020, 10:00 IST to Friday, May 22, 2020, 17:00 IST
Online display of provisional answer keys at https://jeeadv.ac.in	Wednesday, May 27, 2020, 10:00 IST
Receiving feedback from candidates on provisional answer keys through candidate portal	Wednesday, May 27, 2020, 10:00 IST to Thursday, May 28, 2020, 17:00 IST
Online display of final answer keys at https://jeeadv.ac.in	Monday, June 08, 2020

22. 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) 2020 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 marks obtained by a candidate in JEE (Advanced) 2020 is the sum of the marks awarded to him/her in Physics, Chemistry and Mathematics.
- Rank lists are prepared based on the aggregate marks in JEE (Advanced) 2020.
- If the aggregate marks scored by two or more candidates are the same, then the following tie-break policy will be used for awarding ranks:
 - **Step 1:** Candidates having higher positive marks will be awarded higher rank.

If the tie breaking criterion at Step 1 fails to break the tie, then the following criterion at Step 2 will be followed.

Step 2: 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 28. 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 those candidates who score the minimum prescribed marks in each subject
 and also in aggregate will be included in the rank list. The minimum prescribed
 marks vary 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
GEN-EWS rank list	9.0	31.5
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-	5.0	17.5
PwD)		
GEN-EWS-PwD rank list	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

NOTE: (i) CRL is the rank list in which all candidates (across all categories) will be given ranks. (ii) Minimum percentage of aggregate marks may be lowered subsequently, if required, as per the MHRD directive (F.No. 28-8/2017-T.S.-I) dated June 13, 2018.

23. RESULTS OF JEE (ADVANCED) 2020

- Results will be declared on Monday, June 08, 2020 10:00 IST. Category-wise All India Ranks (AIR) of successful candidates will be available through the JEE(Advanced) 2020 online portal after the results are declared. Text messages will also be sent to the candidates to their registered mobile numbers.
- Individual rank cards will **NOT** be sent to candidates.
- Qualifying in JEE Advanced (2020), 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.

24. ARCHITECTURE APTITUDE TEST FOR B. ARCH. PROGRAM

- B. Arch. program is available at IIT (BHU) Varanasi, 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) 2020 are eligible to appear in AAT 2020.
- Apart from passing the Architecture Aptitude Test (AAT), the performance in Class XII (or equivalent) board examination (mentioned in Section 26) will remain same for B. Arch. Program admission.
- Syllabus for AAT is given in Annexure-I: SYLLABI.
- Candidates must register online at the JEE(Advanced) 2020 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) 2020 should be produced in the AAT examination hall, along with original photo identity card.
- Candidates should bring their own drawing and colouring aids.
- The Joint Implementation Committee of JEE (Advanced) 2020 will decide the cut-off marks for passing AAT.
- Results of AAT will be declared on the JEE (Advanced) 2020 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) 2020 and B. Arch. program will be offered only to those candidates declared PASS in the AAT.

Schedule of AAT

Portal for AAT Registration	https://jeeadv.ac.in
Registration for AAT	Monday, June 08, 2020, 10:00 IST
Registration for AA1	to Tuesday, June 09, 2020, 17:00 IST
Architecture Aptitude Test	Friday, June 12, 2020
Architecture Aprillade Test	09:00 to 12:00 IST
Declaration of AAT Results	Tuesday, June 16, 2020

PART-III: ADMISSION

25. 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.

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

- The candidates should satisfy <u>at least one of the following two criteria</u> 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%. Physics, Chemistry and Mathematics are required as compulsory subjects in the Class XII (or equivalent) Board examination in 2019 or 2020.
 - (2) Must be within the category-wise top 20 percentile of successful candidates in their respective Class XII (or equivalent) board examination in 2019 or 2020 with Physics, Chemistry and Mathematics as compulsory subjects.

The percentile calculation will be done for the required subjects in a single academic year only. Therefore, candidates appearing for improvement in Board examinations can EITHER appear in one or more subjects and secure 75% aggregate marks (65% for SC, ST and PwD) after improvement, OR, appear for improvement in ALL subjects to be in top 20 percentile (see section titled "Regarding the cut-off marks for the top 20 percentile") of the corresponding academic year.

- 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) 2020 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 for the first time in 2019 and reappeared in ALL subjects (for whatsoever reason) in 2020, 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

https://jeeadv.ac.in/foreign.php for eligibility criteria.

26.1. 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 the candidates who pass 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, GEN-EWS, OBC-NCL, SC and ST categories.
- It is reiterated that top 20 percentile cut-off for the academic year 2019-2020 will be considered for the candidates who pass the Class XII (or equivalent) examination in 2020.
- Similarly, top 20 percentile cut-off for the academic year 2018-2019 will be considered for the candidates who pass the Class XII (or equivalent) examination in 2019.
- Candidates who appeared in Class XII (or equivalent) examination for the first time in 2019 and wish to (or have to) reappear in 2020 with the objective to qualify through top 20 percentile cut-off criteria, should reappear in all the subjects. For such candidates, top 20 percentile cut-off for 2020 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, in the respective categories, for the CBSE will be used.

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

- The aggregate marks scored by the candidate in the 2020 Class XII (or equivalent)
 Board examination will be considered for candidates who pass the Class XII examination in 2020.
- The aggregate marks scored by the candidate in the 2019 Class XII (or equivalent) Board examination will be considered provided the candidate does not reappear in the Class XII (or equivalent) examination in 2020 in any of the subjects.
- If a candidate has passed his/her Class XII (or equivalent) in 2019 and wishes to improve his/her aggregate marks to meet the "aggregate marks of 75% (or 65% for SC, ST and PwD) criterion", he/she can reappear for any number of subjects he/she wishes for improvement. The percentage of marks in this situation will be calculated by considering the marks obtained in 2019 or 2020, whichever is higher, in the respective subjects, in his/her two attempts in 2019 and 2020.

27. JOINT SEAT ALLOCATION

- The seats across IITs, NITs, IIITs and other Govt. Funded Technical Institutes (GFTIs) will be offered and allocated through a common process 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 preferential choices of the courses
 and institutes.
- The detailed instructions for filling-in the choices and the seat allotment procedure will be made available by JoSAA through Seat Allotment Business Rules Brochure.
- The schedule of the joint seat allocation will be announced separately by JoSAA 2020.

• The list of courses that will be offered by the IITs for admission for the academic year 2020-21 will be made available at the time of online filling-in of choices.

28. PREPARATORY COURSES

- The seats reserved for SC, ST and PwD candidates which remain vacant 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 22. 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.
- Selected 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 Academic Year 2021-22) to which they have been allocated. At the end of this course, candidates are declared as 'pass' or 'fail'. The institute at which one-year preparatory course is run for a candidate may be different from the institute allocated to the candidate for their academic program.
- On successful completion of the course, the candidates will be offered direct admission in July 2021 (Academic Year 2021-22) to the already allotted undergraduate course.
- Candidates admitted to the preparatory course are also eligible to appear in JEE (Advanced) 2021 subject to fulfilling other eligibility criteria.
- Filling-in of choices for preparatory courses is through the same online portal.

29. ADDITIONAL REQUIREMENTS FOR CERTAIN COURSES

- Those who opt for B.Tech. in Mining Engineering / Mining Machinery Engineering / Petroleum Engineering OR B.Tech.-M.Tech. Dual Degree in Mining Engineering / Mining Safety Engineering OR Integrated M.Tech. in Applied Geology / Applied Geophysics OR Integrated M.Sc. in Applied Geology / Exploration Geophysics, 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.

30. 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) Dhanbad, IIT Kharagpur and IIT (BHU) Varanasi.

31. LIST OF COURSES OFFERED BY IITS IN THE ACADEMIC YEAR 2019-20

The relevant courses offered by IITs in the academic year 2019-20 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 2020 may vary. A few of the courses offered in 2019 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.

32. IMPORTANT DATES

Important dates of various activities regarding JEE (Advanced) 2020 are presented in **Annexure - IV**.

33. GRIEVANCES

All stages of JEE (Advanced) 2020 will be conducted with transparency. Should there be any grievance relating to JEE (Advanced) 2020, the candidate can write to the Chairman of the Zonal IIT, or to the Organizing Chairman of JEE (Advanced) 2020 for clarification at the addresses given in **Annexure - V**. The decision taken on such grievances by the Chairman of the Zonal IIT or the Organizing Chairman of JEE (Advanced) 2020 shall be final.

Annexures

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, α , β , γ), 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 Fe²⁺, Cu²⁺ and Zn²⁺; 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⁺, Hg²⁺, Cu²⁺, Pb²⁺, Bi³⁺, Fe³⁺, Cr³⁺, Al³⁺, Ca²⁺, Ba²⁺, Zn²⁺, Mn²⁺ and Mg²⁺); 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-enoltautomerism; 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 KMnO₄ and ozone; Reduction of alkenes and alkynes; Preparation of alkenes and alkynes by elimination reactions; Electrophilic addition reactions of alkenes with

X₂, HX, HOX and H₂O (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-Tieman 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, ZnCl₂/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 monofunctional 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

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.

Probability

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

<u>Two dimensions</u>: 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.

<u>Three dimensions</u>: 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-GEN-EWS

INCOME & ASSET CERTIFICATE TO BE PRODUCED BY ECONOMICALLY WEAKER SECTIONS

Certificate No	Date	e:
VAI	ID FOR THE YEAR	
1. This is to certify that	Shri/Smt./Kumari	son/daughter/wife
1. This is to certify that Shri/Smt./Kumari son/daugh of permanent resident of Village/Street Post Office		
in the St	ate/Union Territory	Pin Code
financial year H I. 5 acres of agricultu II. Residential flat of	"family"** is below Rs. 8 lakh (Rupees is/her family does not own or possess any or ral land and above; 1000 sq. ft. and above; 100 sq. yards and above in notified municip	of the following assets***:
2. Shri/Smt./Kumari	200 sq. yards and above in areas other than a belongs to the e Caste, Schedule Tribe and Other Backwar	caste which is
	Name	icer gnation
Recent Passport size attested photograph	The income and assets of the f	amilies as mentioned

^{*} Note1: Income covered all sources i.e. salary, agricultural, business, profession, etc.

^{**} Note2: The term "Family" for this purpose includes the person, who seeks benefit of reservation, his/her parents are siblings below the age of 18 years as also his/her spouse and children below the age of 18 years.

^{***} Note3: The property held by a "Family" in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

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

	Cum*of	
	Oistrict/Division*	
	belongs to	
	community that is recognized as a backward cla	ass under
	Social Justice and Empowerment's Resolu	
Shri/Smt./Kum.	and/or	
nis/her family ordinarily $\operatorname{reside}(\operatorname{s})$ in the $_$	District/D	ivision of
to the Government of India, Departmen (SCT) dated 08/09/93 which is mod	ns (Creamy Layer) mentioned in Column 3 of the nt of Personnel & Training O.M. No. 36012/22, diffied vide OM No. 36033/3/2004 Estt.(Res No. 36033/3/2004-Estt. (Res.) dated 14/10/200013-Estt (Res) dtd. 30/05/2014.	/93- Estt. .) dated
Dated: Seal	District Magistrate / Deputy Commissioner / Any other Competent Aut	
Please delete the word(s) which As listed in the Annexure (for Fo The authority issuing the certific	are not applicable. ORM-OBC-NCL) cate needs to mention the details of Resolution of the caste of the candidate is mentioned as OBC.	of

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/ Ist Class Stipendiary Magistrate/ Sub-Divisional magistrate/ Taluka Magistrate/ Executive Magistrate/ Extra Assistant Commissioner (not below the rank of Ist 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.12019/6/2005-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

of	of	Village/Town*	
		-	belongs to
		Caste / Scheduled Tribe* under :-	
* The Constitution (Scheduled Castes) Or * The Constitution (Scheduled Tribes) Or * The Constitution (Scheduled Castes) * The Constitution (Scheduled Tribes) (Un	der, 1950 (Union Territories) Order, 1951		
	70, the North Eastern Areas (Reorg	anisation) Act, 1971, the Scheduled Caste	Act, 1960, the Punjab Reorganisation Act, es and Scheduled Tribes Orders
The Constitution (Jammu and Kashmir) S The Constitution (Andaman and Nicobar 1976;		959, as amended by the Scheduled Castes	s and Scheduled Tribes Order (Amendment) A
The Constitution (Dadara and Nagar H	•	962;	
The Constitution (Dadara and Nagar Hav The Constitution (Pondicherry) Schedule The Constitution (Uttar Pradesh) Schedule The Constitution (Goa, Daman and Diu) The Constitution (Goa, Daman and Diu) The Constitution (Nagaland) Scheduled The Constitution (Sikkim) Scheduled Cas The Constitution (Sikkim) Scheduled Trib	d Castes Order, 1964; led Tribes Order, 1967; Scheduled Castes Order, 1968; Scheduled Tribes Order, 1968; Tribes Order, 1970; tes Order, 1978; es Order, 1978;		
The Constitution (Jammu and Kashmir) S The Constitution (Scheduled Castes) Ord The Constitution (Scheduled Tribes) Ord The Constitution (Scheduled Tribes) Ord # This certificate is issued or erritory*	er (Amendment) Act, 1990; er (Amendment) Act, 1991; er (Second Amendment) Act, 1991. n the basis of the Schedule father/mother* of Shri / in District/Divis who belong	ed Castes / Scheduled Tribes* (Shrimati /Kumari* ion*	of the State State/Union
The Constitution (Jammu and Kashmir) S The Constitution (Scheduled Castes) Ord The Constitution (Scheduled Tribes) Ord The Constitution (Scheduled Tribes) Ord # This certificate is issued or Ferritory* Scheduled Tribe* in the State	er (Amendment) Act, 1990; er (Amendment) Act, 1991; er (Second Amendment) Act, 1991. In the basis of the Schedule father/mother* of Shri / in District/Divis who belong / Union Territory*	ed Castes / Scheduled Tribes* (Shrimati /Kumari* ion* to the Caste / Tribe* which isissued by the control of	of Village/Town of the State State/Union recognised as a Scheduled Caste the dated
The Constitution (Jammu and Kashmir) S The Constitution (Scheduled Castes) Ord The Constitution (Scheduled Tribes) Ord The Constitution (Scheduled Tribes) Ord # This certificate is issued or Ferritory* Scheduled Tribe* in the State 3. Shri/ Shrimati/ Kumari *	ler (Amendment) Act, 1990; er (Amendment) Act, 1991; er (Second Amendment) Act, 1991. In the basis of the Schedule father/mother* of Shri / in District/Divis who belong / Union Territory*	ed Castes / Scheduled Tribes* (Shrimati /Kumari* ion* to the Caste / Tribe* which isissued by toand / or* his / her* family or	of Village/Town of the State State/Union recognised as a Scheduled Caste the date ordinarily reside(s)** in Village/Town
The Constitution (Jammu and Kashmir) S The Constitution (Scheduled Castes) Ord The Constitution (Scheduled Tribes) Ord The Constitution (Scheduled Tribes) Ord # This certificate is issued or Ferritory* Scheduled Tribe* in the State 3. Shri/ Shrimati/ Kumari *	ler (Amendment) Act, 1990; er (Amendment) Act, 1991; er (Second Amendment) Act, 1991. In the basis of the Schedule father/mother* of Shri / in District/Divis who belong / Union Territory*	ed Castes / Scheduled Tribes* (Shrimati /Kumari* ion* to the Caste / Tribe* which isissued by toand / or* his / her* family or	of Village/Town of the State State/Union recognised as a Scheduled Caste the dated
The Constitution (Jammu and Kashmir) S The Constitution (Scheduled Castes) Ord The Constitution (Scheduled Tribes) Ord The Constitution (Scheduled Tribes) Ord # This certificate is issued or Ferritory* Scheduled Tribe* in the State 3. Shri/ Shrimati/ Kumari *	ler (Amendment) Act, 1990; er (Amendment) Act, 1991; er (Second Amendment) Act, 1991. In the basis of the Schedule father/mother* of Shri / in District/Divis who belong / Union Territory*	ed Castes / Scheduled Tribes* (Shrimati /Kumari* ion* to the Caste / Tribe* which isissued by toand / or* his / her* family or	of Village/Town of the State State/Union recognised as a Scheduled Caste the date ordinarily reside(s)** in Village/Town tory* of
The Constitution (Jammu and Kashmir) S The Constitution (Scheduled Castes) Ord The Constitution (Scheduled Tribes) Ord The Constitution (Scheduled Tribes) Ord # This certificate is issued or Ferritory* Scheduled Tribe* in the State 3. Shri/ Shrimati/ Kumari *	ler (Amendment) Act, 1990; er (Amendment) Act, 1991; er (Second Amendment) Act, 1991. In the basis of the Schedule father/mother* of Shri / in District/Divis who belong / Union Territory*	ed Castes / Scheduled Tribes* (Shrimati /Kumari* ion* to the Caste / Tribe* which isissued by toand / or* his / her* family or	of Village/Town of the State State/Union recognised as a Scheduled Caste the dated ordinarily reside(s)** in Village/Town tory* of
The Constitution (Jammu and Kashmir) S The Constitution (Scheduled Castes) Ord The Constitution (Scheduled Tribes) Ord The Constitution (Scheduled Tribes) Ord # This certificate is issued or erritory* Scheduled Tribe* in the State 3. Shri/ Shrimati/ Kumari * of	ler (Amendment) Act, 1990; er (Amendment) Act, 1991; er (Second Amendment) Act, 1991. In the basis of the Schedule father/mother* of Shri / in District/Divis who belong / Union Territory*	ed Castes / Scheduled Tribes* (Shrimati /Kumari* ion* to the Caste / Tribe* which isissued by toand / or* his / her* family out/Division* of the State Union Terri	of Village/Towr of the State State/Union recognised as a Scheduled Caste the date ordinarily reside(s)** in Village/Town tory* of Signature: Designation
The Constitution (Jammu and Kashmir) S The Constitution (Scheduled Castes) Ord The Constitution (Scheduled Tribes) Ord The Constitution (Scheduled Tribes) Ord # This certificate is issued or erritory* Scheduled Tribe* in the State 3. Shri/ Shrimati/ Kumari * of	ler (Amendment) Act, 1990; er (Amendment) Act, 1991; er (Second Amendment) Act, 1991. In the basis of the Schedule father/mother* of Shri / in District/Divis who belong / Union Territory* District	ed Castes / Scheduled Tribes* (Shrimati /Kumari* ion* to the Caste / Tribe* which isissued by toand / or* his / her* family out/Division* of the State Union Terri	of Village/Towr of the State State/Union recognised as a Scheduled Caste the date ordinarily reside(s)** in Village/Town tory* of Signature: Designation

© JEE (Advanced) 2020– Information Brochure

- 2. Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
- Revenue Officers not below the rank of Tehsildar.
 Sub-divisional Officer of the area where the candidate and/ or his family normally reside(s).
- 5. Administrator / Secretary to Administrator / Development Officer (Lakshadweep Island).
- 6. Certificate issued by any other authority will be rejected.

FORM-PwD (II)

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)

Attes Photo (Shoronly)	oted ograph wing face of the person disability					
Certifi	cate No				Date:	
	,		•			
Date c	of Birth (DD/MM/YY)			Age	years, ma	ale/female
	Regist	ration	No		permanent resident (of House
No		V	/ard/Village/ St	treet		
Post C	Office			District		
State _				, whose phot	ograph is affixed above,	and am
satisfi	ed that:					
2. the	/she is a case of: a. locomotor disab b. blindness (Please tick as applice diagnosis in his/he	cable) r case	is			percent
(in	words) permanent	physic	al impairment,	blindness in re	lation to his/her	
•••	art of body) as per gu e applicant has subn			•	oof of residence:-	
	· ·			<u> </u>	nority issuing certificate]
Si in pe fa	ignature/Thumb ignature/Thumb inpression of the erson in whose ivour disability ertificate is sued.	rised S			nority)	
13	Jucu.			68 ———		

FORM-PwD(III)

Form-III Disability Certificate (In cases of multiple disabilities)

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE) (See rule 4)

Recent P	P size
Attested	
Photograph	า
(Showing	face
only) of the	e person
with disabi	lity

Certificate No		Date:	
This is to certify that I	have carefully examined Shri/Smt./Ku	ım	
sc	n/ wife/daughter of Shri		
Date of	Birth (DD/MM/YY)	Age	years,
male/female	Registration No.		
permanent resident of	House No	Ward/Villag	e/Street
	Post Office		_ District
	State		
whose photograph is a	affixed above, and are satisfied that:		
1 He/she is a Case of	Multinle Disability. His/her extent o	of nermanent physical impair	ment/

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	Х		
6	Mental-illness	Х		

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

	e.g. Single eye/both eyese.g. Left/Right/both ears					
2	. In the light of the above, his/her overall permanent physical impairment as per guideline					
	(to be specified), is as follows:					
	In figures:	In figures: percent				
	In words:		percent			
3.	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)					
5.	. The applicant has submitt	ed 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			
Total Care Comments of the Com	Signature/Thumb impression of the person in whose favour disability certificate is issued.					

FORM-PwD(IV)

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)

PP

size

face

Recent

Attested Photograph (Showing

only) of the person with disability			
Certificate No		Date:	
This is to certify that I have	e carefully examined Shri/Smt./Ku	m	
son/ v	vife/daughter of Shri		
Date of Birth	n (DD/MM/YY)	Age	years,
male/female	Registration No.		
permanent resident of Ho	use No	Ward/Vi	llage/Street
	Post Office		District
	State		,
whose photograph is affixed	ed above, and am satisfied that he	e/she is a case of disabili	ty.

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	Х		
6	Mental-illness	Х		

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

- @ e.g. Left/Right/both arms/legs
- # e.g. Single eye/both eyes
- £ e.g. Left/Right/both ears
- 2. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.
- 3. Reassessment of disability is:
 - a. not necessary

Or

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

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

Date:

FORMAT OF MEDICAL CERTIFICATE / REPORT TO BE PRODUCED BY DYSLEXIC CANDIDATE {To be obtained from any Dyslexia Association*}

PSYCHO-	EDUCATION	I EVALUATION REPOR	T
Name of the candidate: Date of Birth: Registration in the Dyslexia Assn. (da	ate / numbe		Photograph of the Candidate
Name of the Father/Mother/Guardia	n:		
Name/address and Regn. No. of the Dyslexia Association :			
Physical & Neurologic Assessment:	[]	
Psychological Assessment: WISC Verbal IQ: Performance IQ: Full Scale IQ:	[]	
Interpretation:	[1	
Educational Assessment:	[1	

Certified that:

- 1. The condition of handicap is: MILD / MODERATE / SEVERE (tick whichever is applicable)**
- 2. The disability is **PERMANENT** in nature and **DETAILED REPORTS OF DYSLEXIA ASSESSMENT ARE ATTACHED WITH THIS FORM (IN ORIGINAL).**

- 1. Dyslexia Trust of Kolkata, 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, L J Road, Deonar, Mumbai 400088
- The Dyslexia Association of India, MZ-47, The Centre Stage Mall, Plot No 01, Block L, Sector 18, NOIDA 201303

Signature and Name (in CAPITAL LETTERS) of the certifying official: Seal:

^{*}Some Dyslexia Associations:

^{**}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.

FORM-DYSLEXIC-2

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

Testimonial

Testimomai	
Date:	
Name of the candidate:	Photograph
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 ca	ategory.
Signature with seal:	
*A candidate passing Class XII or equivalent through open school system or may submit the certificate to this effect from the competent authority in the 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 car	rd Shri/Kum								
born on	is the son/daughter of Shri/Smt								
	, Rank								
	of Unit	Service							
	Service No.								
killed in action/perma	nently disabled/missing on								
during	(Name of war/operation).								
Name of the Guardian:									
Address:									
The holder is eligible	e for all educational concessions sand on of Armed Forces personnel killed, miss perations.	ctioned by Central							
Signature of the author	ized Officer								
Office Address:									
	ment Card for Education Scholarship should be w Delhi-11, and for Personnel Below Officer Ro ective Record Offices.)	=							
	75								

FORM-SCRIBE (AMANUENSIS)

FORMAT OF REQUEST LETTER FOR SCRIBE (AMANUENSIS) FOR PwD CANDIDATES

From	Date:
Name of the candidate:	
Address:	
Application / Roll Number of JEE (Ma	nin) 2020: Email:
The Chairman, JEE (Advanced) 2020	y/ Delhi/ Guwahati/ Kanpur/ Kharagpur/
Dear Sir, <u>Subject: Requirement of</u>	f SCRIBE (AMANUENSIS)
	ed/ dyslexic (severe)/ disability in the upper limbs te service of a scribe (AMANUENSIS) for writing eedful.
of a scribe, but do not possess the exter	scovered at any stage that I have used the services nt of disability that warrants the use of a scribe, I evaluation, ranking and admission. In case I have dmission will be cancelled.
Thanking you,	
Signature of the candidate	Signature of the Parent/Guardian
	(Name of the Parent/Guardian)
	– 76 ————————————————————————————————————

Declaration by the Candidate in Lieu of OBC-NCL Certificate

Name of the send date.				
Name of the candidate:				
Address:				Passport size photo
Application /Roll Number of .	JEE (Main) 2020:			
Mobile No:	Em	ail:		
I understand that as per the Pensions, GoI, I am required to Since I have not been able to (Advanced) 2020 provisionall and that I will upload a fresh May 28, 2020, 05:00 PM. I understand that inability to ut OBC-NCL benefit. I also understand Common Rank List.	to submit OBC-NC collect the said certy. I hereby declare certificate (issued upload the same by	L certificate issued tificate on time, I that I wrote JEE (on/after April 1, 2) the given date and	d on or after App may kindly be a Main) 2020 as C 2020) at the web d time will lead to	ril 1, 2020. Ilowed to write JEE DBC-NCL candidate portal on or before to the withdrawal of
Signature of Father/Mother	•		Signature of A	pplicant
Name: Date:			Date:	

Declaration by the Candidate in Lieu of GEN-EWS Certificate

Name of the candidate:				
Address:				Passport size photo
Application /Roll Number of .	JEE (Main) 2020: [
Mobile No:	Ema	nil:		
I understand that as per the Pensions, GoI, I am required to Since I have not been able to (Advanced) 2020 provisionally and that I will upload a fresh May 28, 2020, 05:00 PM. I understand that inability to understand that inability to understand that I also understand Common Rank List.	to submit GEN-EW collect the said certy. I hereby declare certificate (issued appload the same by	S certificate issued tificate on time, I is that I wrote JEE (Non/after April 1, 2) the given date and	d on or after App may kindly be a Main) 2020 as G 020) at the web I time will lead t	ril 1, 2020. Illowed to write JEE EN-EWS candidate portal on or before to the withdrawal of
Signature of Father/Mother Name:	r		Signature of A	pplicant
Date:			Date.	

78

Annexure-III Courses Offered in the Academic Year 2019-20

		IITs																						
Code	Branch Name	В	BBS	BHU	D	G	GN	Н		J	K	KGP	М	Mandi	PKD	Р	R	RPR	TP	ISM	GOA	ВН	JM	DWD
									B. 1	Гесh	. (4	Years)											
1.	Aerospace Engineering	х									х	х	х											
2.	Agricultural and											х												
	Food Engineering																							
3.	Artificial Intelligence							х																
4.	Bio Engineering									х														
5.	Bio Technology					х											Х							
6.	Biological																							
Ŭ.	Sciences and										х													
	Bioengineering										^													
7.	Biotechnology																							
,. 	and Biochemical				х							х												
0	Engineering Ceramic																							$\overline{}$
8.	Engineering			х																				
9.	Chemical Engineering	х		х	х	х	х	х			х	х	х			х	х	х	х	х			х	
10.	Chemical Science																							
	and Technology					Х																		
11.	Civil Engineering	Х	х	х	х	х	х	х	х		Х	х	Х	Х	х	х	Х	х	х	х			х	
12.	Computer																							
	Science and	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
	Engineering																							
13.	Data Science and													х										
\vdash	Engineering																							
14.	Electrical and																							
	Electronics															Х								
\vdash	Engineering																							
15.	Electrical Engineering	х	х	х	х		х	х	х	х	х	х	х	х	х		х	х	х	х	х	х	х	х
16.	Electrical																							
	Engineering																							
	(Power and				Х																			
	Automation)																							
17.	Electronics and																							$\overline{}$
	Communication		х			х											х			х				
	Engineering		``			•											``			``				
18.	Electronics and																							$\overline{}$
	Electrical																							
	Communication											х												
	Engineering																							
19.	Electronics and																							$\overline{}$
	Electrical					х																		
	Engineering					•																		
20.	Electronics																							
	Engineering			Х																				

		IITs																						
Code	Branch Name	В	BBS	BHU	D	G	GN	Н		J	K	KGP	М	Mandi	PKD	Р	R	RPR	TP	ISM	GOA	BH	JM	DWD
21.	Engineering Physics	х			х	х		х					х	х			х			х				
22.	Engineering Science							х																
23.	Environmental Engineering																			х				
24.	Industrial and																							
24.	Systems Engineering											х												
25.	Instrumentation																							
	Engineering											х												
26.	Manufacturing Science and											х												
	Engineering																							
27.	Materials Science and Engineering						х				х												х	
28.	Materials Science and Metallurgical							х																
	Engineering																							
29.	Mathematics and																							
	Computing				Х	Х		Х										Х			Х			
30.	Mechanical	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
24	Engineering																							
31.	Metallurgical and																١							
	Materials		Х									Х	Х			Х	Х	Х						
22	Engineering																							
32.	Metallurgical			х																				
22	Engineering																							
33.	Metallurgical																							
	Engineering and Materials Science	Х							Х															
34.	Mineral Engineering																			x				
35.	Mining			AR								ΛD								AR				
	Engineering			AK								AR								AK				
36.	Mining																							
	Machinery																			AR				
	Engineering																							
37.	Naval																							
	Architecture and												х											
	Ocean												^											
	Engineering																							
38.	Ocean																							
	Engineering and											х												
	Naval											~												
	Architecture																							
39.	Petroleum																			AR				
40	Engineering																							
40.	Pharmaceutical Engineering &			V																				
	Technology			Х																				
	reciliology	l	l	<u> </u>		l	l .	<u> </u>			l	1			l		l			<u> </u>	l		l	

		IITs																						
Code	Branch Name	В	BBS	BHU	D	G	GN	Н		J	K	KGP	М	Mandi	PKD	Р	R	RPR	TP	ISM	GOA	BH	JM	DWD
41.	Polymer Science and Engineering																х							
42.	Production and																							
	Industrial				х												х							1
	Engineering																							1
43.	Textile																							
	Technology				Х																			1
	B.S. (4 Years)																							
44.	BS in											-												
	Mathematics	Х																						1
45.	Chemistry	Х									Х													
46.	Earth Sciences										Х													
47.	Economics	х									Х													
48.	Mathematics and																							
	Scientific										х													
	Computing																							,
49.	Physics										Х													
	,								В. /	Arch		Years)				ı							
50.	Architecture			Х							Ì	Х					х							
	B. TechM.Tech. Dual Degree (5 Years)																							
	Aerospace																							
51.	Engineering											Х	Х											1
52.	Agricultural and																							
	Food Engineering																							1
	with M.Tech. in											х												1
	any of the listed																							1
	specializations																							1
53.	Bio Engineering													Х										
54.	Biochemical																							
	Engineering with																							1
	M.Tech. in			.,																				1
	Biochemical			Х																				1
	Engineering and																							1
	Biotechnology																							
55.	Bioengineering																							
	with M.Tech in			х																				
	Biomedical			^																				
	Technology																							
56.	Biological												Х											
	Engineering												^											
57.	Biotechnology																							,]
	and Biochemical											Х												
	Engineering																							
58.	Ceramic			х																				
	Engineering			^																				
59.	Chemical				х							v]
	Engineering				^							Х												
60.	Civil Engineering			Х																				
61.	Civil Engineering		,]
	and M. Tech. in		Х																					

		IITs																						
Code	Branch Name	В	BBS	BHU	D	G	GN	Н		J	K	KGP	М	Mandi	PKD	Р	R	RPR	TP	ISM	GOA	BH	JM	DWD
	Structural																							
	Engineering																							
62.	Civil Engineering																							
	and M.Tech in																							
	Transportation		Х																					
	Engineering																							
63.	Civil Engineering																							
	and M.Tech. in																							
	Environmental		х																					
	Engineering																							
64.	Civil Engineering																							
	with any of the																							
	listed											Х												
	specialization																							
65.	Computer																							
	Science and		х	х	х							х												
	Engineering		^		^																			
66.	Electrical																							
00.	Engineering	Х																						
67.	Electrical																							
07.	Engineering and																							
	M.Tech Power		х																					
	Electronics and		_ ^																					
	Drives																							
68.	Electrical																							
00.	Engineering with																							
	M.Tech. in any of											.,												
	the listed											Х												
	specializations																							
69.	Electrical																							
03.	Engineering with																							
	M.Tech. in Power			х																				
70.	Electronics Electronics and																							
70.	Electronics and Electrical																							
	Communication																							
	Engineering with											Х												
	M.Tech. in any of the listed																							
74	specializations																							
71.	Energy																							
	Engineering with																							
	M.Tech. in	х																						
	Energy Systems																							
	Engineering																							
72.	Engineering												х											
	Design												<u> </u>											
73.	Engineering			х																				
L	Physics																							
	Environmental																							
74.	Science and	Х																						
	Engineering																							

		IITs																						
Code	Branch Name	В	BBS	BHU	D	G	GN	Н	1	1.1	К	KGP	М	Mandi	PKD	Р	R	RPR	TP	ISM	GOA	BH	JM	DWD
75.	Industrial and	В	DDO	DITO	D	- 0	GIV	- "	<u> </u>	J	IX.	NOI	IVI	Ivianui	TND		- 11	IXLIX		IOW	GOA	DIT	JIVI	DIVID
,	Systems																							
	Engineering with																							
	M.Tech. in																							
	Industrial and											Х												
	Systems																							
	Engineering and																							
7.0	Management																							
76.	Industrial			х																				
	Chemistry																							
77.	Manufacturing																							
	Science and																							
	Engineering with																							
	M.Tech. in											х												
	Industrial and											^												
	Systems																							
	Engineering and																							
	Management																							
78.	Materials Science																							
	and Technology			Х																				
79.	Mathematics and																							
	Computing			Х	Х																			
80.	Mechanical																							
00.	Engineering			Х														Х						
81.	Mechanical																							
01.	Engineering and																							
	M. Tech. in		· ·																					
			Х																					
	Mechanical																							
	System Design																							
82.	Mechanical																							
	Engineering and																							
	M. Tech. in		Х																					
	Thermal Science																							
	& Engineering																							
83.	Mechanical																							
	Engineering and																							
	M.Tech. in	v																						
	Computer	Х																						
	Integrated																							
	Manufacturing																							
84.	Mechanical																							
	Engineering with																							
	M.Tech. in any of											х												
	the listed											'												
	specializations																							
85.	Mechanical																							
ەن.	Engineering with								Ī															
	M.Tech. in		, , ,																					
			Х																					
	Manufacturing																							
	Engineering										<u> </u>]]								

TP ISM	GOA	BH	JM	DWD			
ii isM	JUN	ьп	JIVI	DWD			
1 1							
				<u> </u>			
94. Applied Geology Applied Geology Applied Geology AR							
AR				<u> </u>			
AR							
				<u> </u>			
х							
		l		1			
 							
 				1			
 							
 							
 							
				-			
<u> </u>		<u> </u>	l	<u> </u>			
	+	1		 			
	AR		AR	AR			

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) 2020 [Computer Based Test by NTA]	JAN 06 to 11, 2020
2.	JEE (Main) 2020 [Computer Based Test by NTA]	APR 05 to 11, 2020
3.	Results of JEE (Main) 2020 by NTA	By 31-01-2020 & By 30-04-2020
4.	Registration for JEE (Advanced) 2020	FRI, 01-05-2020 to WED, 06-05-2020
5.	Last date for fee payment of registered candidates	THU, 07-05-2020
6.	Admit Card available for downloading	TUE, 12-05-2020 to SUN, 17-05-2020
7.	JEE (Advanced) 2020	SUN, 17-05-2020
8.	Copy of candidate responses to be available on the JEE (Advanced) 2020 website	WED, 20-05-2020, 10 AM to FRI, 22-05-2020, 05 PM
9.	Online display of tentative answer keys	WED, 27-05-2020, 10 AM
	Feedback and comments on tentative answer keys from the candidates	WED, 27-05-2020, 10 AM to THU, 28-05-2020, 05 PM
11.	Online declaration of final answer keys and results of JEE (Advanced) 2020	MON, 08-06-2020, 10 AM
12.	Online registration for Architecture Aptitude Test	MON, 08-06-2020, 10 AM to TUE, 09-06-2020, 05 PM
13.	Architecture Aptitude Test	FRI, 12-06-2020
14.	Declaration of results of AAT	TUE, 16-06-2020, 05 PM
15.	Tentative Start of Seat Allocation Process	TUE, 16-06-2020

Annexure-V Contact Details of Zone-wise IITs

Zone Wise Institutes	Address for Correspondence	Phone Number and Email
South IIT Madras* IIT Hyderabad IIT Palakkad IIT Tirupati	Chairman JEE (Advanced) 2020 IIT Madras Chennai - 600036	Phone: +91 44 22578220 E-mail: jeeadv@iitm.ac.in
West IIT Bombay* IIT Gandhinagar IIT Goa IIT Dharwad	Chairman JEE (Advanced) 2020 IIT Bombay, Powai Mumbai - 400076	Phone: +91 22 25769093 E-mail: jeeadv@iitb.ac.in
North-Central IIT Delhi* IIT Jodhpur IIT Jammu	Organizing Chairman, JEE (Advanced) 2020 IIT Delhi, Hauz Khas New Delhi - 110016	Phone: +91 11 26591785 E-mail: jeeadv@admin.iitd.ac.in
North-East IIT Guwahati* IIT Patna	Chairman JEE (Advanced) 2020 IIT Guwahati Guwahati - 781039	Phone: +91 361 2692795 E-mail: jee@iitg.ac.in
Central IIT Kanpur* IIT Indore IIT (BHU)	Chairman JEE (Advanced) 2020 IIT Kanpur Kanpur - 208 016	Phone: +91 512 2597325 E-mail: jeeadv@iitk.ac.in
East IIT Kharagpur* IIT Bhubaneswar IIT (ISM) IIT Bhilai	Chairman JEE (Advanced) 2020 IIT Kharagpur Kharagpur - 721302	Phone: +91 3222 282102 E-mail: jeeadv@iitkgp.ac.in
North IIT Roorkee* IIT Mandi IIT Ropar	Chairman JEE (Advanced) 2020 IIT Roorkee Roorkee - 247667	Phone: +91 1332 284272 E-mail: jeeoffice@iitr.ac.in

* Zonal IIT