

# JEE (MAIN)-2022

Information Bulletin

English, हिन्दी, অসমীয়া, वाःला, ગુજરાતી, ಕన్నడ, മലയാളం, मराठी, ઉଡ଼ିଆ, ਪੰਜਾਬੀ, தமிழ், తెలుగు & اَرْنُو



### NATIONAL TESTING AGENCY



The right candidates joining best institutions will give India her demographic dividend.

# Mission

To improve equity and quality in education by administering research based valid, reliable, efficient, transparent, fair and international level assessments. The best subject matter experts, psychometricians and IT delivery and security professionals will ensure that the current gaps in existing assessment systems are properly identified and bridged.

# Core Values

NTA will create a system which will promote teaching (by teachers), learning (by students) and assessment (by parents and institutions). NTA strongly believes in quality, efficiency, effectiveness, equity and security of assessments. To practice these values, NTA will constantly engage with its stakeholders, viz. students, parents, teachers, experts and partner institutions.

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Although all efforts have been made to prepare a copy that contains the complete information in the information Bulletin published in English, only the information in the English copy will be valid in relation to any type of error. "

### LIST OF ABBREVIATIONS

JEE (Main)	Joint Entrance Examination (Main)	
AICTE	All India Council of Technical Education	
JoSAA	Joint Seat Allocation Authority	
CSAB	Central Seat Allocation Board	
B.E.	Bachelor of Engineering	
B.Tech.	Bachelor of Technology	
B.Arch.	Bachelor of Architecture	
B.Planning	Bachelor of Planning	
CoA	Council of Architecture	
MoE	Ministry of Education	
NTA	National Testing Agency	
GoI	Government of India	
GST	Goods & Service Tax	
IIT	Indian Institute of Technology	
IIIT	Indian Institute of Information Technology	
NIT	National Institute of Technology	
DASA	Direct Admission for Students Abroad	
CFTI	Centrally Funded Technical Institute	
UFM	Unfair Means	
СВТ	Computer Based Test	
NEP	National Education Policy	
RPwD	Rights of Person with Disabilities	
QP	Question Paper	
TPC	Test Practice Centre	
FAQ	Frequently Asked Question	
QRS	Query Redressal System	
EWS	Economically Weaker Section	
OBC (NCL)	Other Backward Class (Non-Creamy Layer)	
SC	Scheduled Castes	
ST	Scheduled Tribes	

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### IMPORTANT INFORMATION AT A GLANCE

(Please refer to Information Bulletin for details)

### 1. Important Dates:

EVENTS DATES				
(a) Session-1 (April) : JEE (Main	) - 2022 :			
Online Submission of Application Form	Online Submission of Application Form		3.2022 up to 05.00 P.M.	
Last date for successful transaction of p	rescribed	31.03.2022 up to 1	1.30 P.M.	
application Fee				
Announcement of the City of Examinat	ion	First week of Apr	il 2022	
Downloading of Admit Cards from NT	A website	Second week of A	pril 2022	
Dates of Examination		16.04.2022 to 21	1.04.2022	
Display of Question Paper attempted b		To be displayed o	n the NTA website	
and Answer Keys for inviting challenge Declaration of Result	es	To be displayed a	n the NTA website	
		10 be displayed of	ii the N1A website	
(b) Session-2 (May) : JEE (Main)		00.04.2022 / 02.0		
Online Submission of Application Form			5.2022 up to 05.00 P.M.	
Last date for successful transaction of p application Fee	rescribed	03.05.2022 up to 11.30 P.M.		
Announcement of the City of Examinat	ion	Second week of May 2022		
Downloading of Admit Cards from NT.	A website	Third week of Ma	Third week of May 2022	
Dates of Examination		24.05.2022 to 29	0.05.2022	
Display of Question Paper attempted by and Answer Keys for inviting challenge		To be displayed on the NTA website		
Declaration of Result		To be displayed o	n the NTA website	
(c) Duration of Examination for a	each Session: JE	EE (Main) - 2022 :		
Paper 1 (B.E./B.Tech)	Cucii Sessioii. Gi	3 Hours		
or				
Paper 2A (B.Arch)				
Of Paper 2P (P. Planning)				
Paper 2B (B.Planning) B.Arch & B.Planning (both)		3 Hours 30 Minutes		
(d) Timing of Examination for each	ch Session: JEE			
Duration of Examination	First Shift Second Shift		Second Shift	
For 3 Hours Paper	09.00 a.m. to 12.00 Noon(IST) 03.00 p.m. to		03.00 p.m. to 06.00	
	p.m. (IST)			
For 3 Hours 30 Minutes Paper	09.00 a.m. to 1	12.30 p.m. (IST) 03.00 p.m. to 06.30		
			p.m. (IST)	

# 2. Fee Payable for JEE (Main) – 2022 for each session: (Through Credit Card/Debit Card (except Master/Visa Card)/Net Banking/UPI):

Fee payable for JEE (Main) – 2022		Type of	In India	Outside India
(through Credit Card /Debit Card	(except Master/Visa	Candidate	(Fee in ₹)	(Fee in ₹)
Card) / Net-Banking/UPI)				
Paper 1: B.E./B. Tech	General/Gen-EWS/	Male	650	3000
or	OBC (NCL)			
Paper 2A: B. Arch		Female	325	1500
or	SC/ST/PwD	Male	325	1500
Paper 2B: B.Planning	SC/S1/1 WD	whate	323	1500
		Female	325	1500
	Third Gender		325	1500
Paper 1: B.E./B. Tech &	General/Gen-	Male	1300	6000
Paper 2A: B. Arch	EWS/OBC (NCL)			
or		Formala	(50	2000
Paper 1: B.E./B. Tech &		Female	650	3000
Paper 2B: B. Planning	SC/ST/PwD	Male	650	3000
or			<b>5 -</b> 0	2000
Paper 1: B.E./B.Tech,		Female	650	3000
Paper 2A: B. Arch &				
Paper 2B: B.Planning	Third Gender		650	3000
or				
Paper 2A: B. Arch &				
Paper 2B: B.Planning				

Processing charges and Goods & Service Taxes (GST) are to be paid by the candidate, as applicable.

"Candidates are requested to fill in the Application Form very carefully. No corrections will be permitted once the Application Form is submitted"

Note: Multiple Application Forms submitted by a candidate for the same Session(s) will not be accepted at any cost.

- (i) In the first session, only Session 1 will be visible and candidates can opt for that. In the next session, Session 2 will be visible, and the candidates can opt for that Session. The application window for Session 2 will be re-opened later on. Examination for Session 2 will be the last Examination for the JEE (Main) 2022.
  - A candidate can apply for Session 1 and pay the exam fee for Session 1 in the given duration. If a candidate wishes to apply for Session 2, he/she has to apply again when the window will be reopened after the conduct of Session 1 and pay the Examination Fee for Session 2 during that period.
- (ii) The fee can be submitted only online through Net Banking, Credit Card, Debit Card, UPI, or Paytm Services. Processing charges and GST as applicable are chargeable from the candidate (in addition to the examination fee) by the concerned Bank/Payment Gateway Integrator. For details/procedure, please see **Appendix-II**

- (iii) The Confirmation Page of the online Application Form for each session will be generated only after successful payment of the fee by the Candidate. In case the Confirmation Page is not generated after payment of fee, then the candidate may have to approach the concerned Bank/Payment Gateway (in the helpline numbers and email given in **Appendix- II**) for ensuring the successful payment or for obtaining the refund of duplicate /multiple payments.
- 1.Candidates must read carefully the Instructions (including how to fill up the Application Form online) given in the Information Bulletin available on the NTA Website. Candidates not complying with the instructions shall be summarily disqualified.
- 2.Candidates can apply for **JEE** (**Main**) **2022** through the "Online" mode only. The Application Form in any other mode will not be accepted.
- 3. Submission of Application Form could be made by the candidate online through the NTA website: https://jeemain.nta.nic.in/
- 4. **Instructions for filling Online** Application Form:
- ❖ Download Information Bulletin and Replica of Application Form. Read these carefully to ensure your eligibility.
- **\*** Follow the steps given below to Apply Online:

### **Step 1: Registration Form:**

Register for the Online Application Form and note down the system-generated Application Number. The candidate should supply the required details while filling the Online Application Form and is also required to create PASSWORD and choose Security Question and enter his/her Answer. After successful submission of the personal details, an Application number will be generated and it will be used to complete the remaining Steps of the Application Form and will also be required for all future reference/correspondence. This application number will also be used/referred for both Sessions of JEE (Main) - 2022. For subsequent logins, the candidate will be able to login directly with the respective system-generated **Application Number** and created **Password.** 

### **Step 2: Application Form:**

The Candidates can log in with the system-generated Application Number and pre-created Password for completing the Application Form including filling up of personal details, applying for the Paper, choosing the Examination Cities, providing the details of Educational Qualifications, and uploading the images and documents (if any).

Upload Scanned Images of Candidate's Photograph, Signature, and Category Certificate (if applicable), and PwD Certificate (wherever applicable):

- i. The recent photograph should be either in colour or black & white with 80% face (without mask) visible including ears against a white background.
- ii. Scanned photograph and signature should be in JPG/JPEG format (clearly legible).
- iii. The size of the scanned photograph should be between 10 kb to 200 kb (clearly legible).
- iv. The size of the scanned signature should be between 4 kb to 30 kb (clearly legible)
- v. The size of the scanned copy of the Category certificate (SC/ST/OBC/EWS etc.) should be in pdf between 50kb to 300kb (clearly legible).

vi. The size of the scanned copy of the PwD certificate should be in pdf between 50 kb to 300 kb (clearly legible)

[Note: The Candidate has to upload only his/her own photograph, signature, and certificate(s) as mentioned above (and not of anybody else) in a correct/proper manner, as the facility for correction will not be given in the future. In case, it is found at any time in the future that the Candidate has used/uploaded the photograph, signature, and certificate(s) of someone else in his/her Application Form/Admit Card, or he/she has tampered his/her Admit Card/Result/Scorecard, these acts of the candidate shall be treated as Unfair Means (UFM) Practices and he/she shall be proceeded with the actions as contemplated under the provisions of the Information Bulletin relating to Unfair Means Practices.

Please check your photograph and signature before submission of the Application Form. In case the photograph or signature is blurred or not visible to identify the identity of the candidate then, the application will be rejected and no option for correction or revision will be permitted

### **Step 3: Fee Payment:**

After completing Step 1 and Step 2, the candidates have to pay the requisite examination fee. The fee can be submitted only online through Net Banking, Credit Card, Debit Card, UPI, or Paytm Services. Processing charges and GST as applicable are chargeable to the candidate (in addition to the examination fee) by the concerned Bank/Payment Gateway Integrator.

The Confirmation Page of the online Application Form will be generated only after successful payment by the Candidate. In case the Confirmation Page is not generated after payment of fee, then the candidate may have to approach the concerned Bank/Payment Gateway (in the helpline number and e-mail given in the Information Bulletin) for ensuring the successful payment or for obtaining the refund of duplicate / multiple payments].

- Download, save and print a copy of the Confirmation Page of the Application Form (which would be downloadable only after successful remittance of fee) for future reference.
- ❖ All **3 Steps** can be done together or at separate timings. The submission of the Application of a candidate could be considered as successful and his/her candidature would be confirmed only on the successful transaction/receipt of the prescribed application fee from him/her.
- 5. Candidates shall ensure that the information entered by them in their respective online Application Form is correct.
- 6. All candidates must ensure that they have provided the correct e-mail address and mobile number. A copy of the Confirmation Page and Final Score Card of JEE (Main) 2022 will also be sent to the registered e-mail address of the Candidates.
- 7. Information provided by the candidates in their respective online Application Forms, like, the name of the candidate, contact details, address details, category, PwD status, educational qualification details, date of birth, choice of exam cities, etc. will be treated as final. **Any request for change in such particulars will not be considered by NTA under any circumstances.**

- 8. NTA does not edit/modify/alter any information entered by the candidates after completion of the application process under any circumstances. Any request for change in information thereafter will not be entertained. Therefore, candidates are advised to exercise utmost caution before filling up the correct details in the Application Form.
- 9. NTA disclaims any liability that may arise to a candidate(s) due to incorrect information provided by him/her in his/her online Application Form.
  - 10. Candidates must ensure that their email address and mobile number to be registered in their online Application Form are their own, as relevant/important information/communication will be sent by NTA through e-mail on the registered mail address and/or through SMS on the registered mobile number only. NTA shall not be responsible for any non-communication/miscommunication with a candidate in the email address or mobile number given by him/her other than his/her own.
  - 11. Candidates are also requested to **download and install the SANDES** application as a secondary channel to receive time-to-time notifications from NTA.

**SANDES APP** can be downloaded and installed system-generated Mobile Device as follow:

- Visit the Google Play Store on your Mobile Device.
- Search for the "Sandes App" in the search bar.
- It then displays the app in the play store.
- Click on Install, and then the app gets downloaded into your mobile.
- Now, mobile users can enjoy the services of the Sandes Mobile App.

Candidates are advised to visit the NTA Website and check their e-mails regularly for the latest updates.

12. Candidates shall appear at their own cost at the Examination Centre on the date, shift, and time indicated on their Admit Cards issued by the NTA in due course through its Website.

### Note:

- i. The final submission of the Online Application Form will remain incomplete if **Step-3** is not complete. Such forms will stand rejected and no correspondence on this account will be entertained.
- ii. The entire application process for **JEE** (**Main**) **2022** is online, including uploading of scanned images/documents, payment of fees, and printing of Confirmation Page, Admit Card, etc. **Therefore, candidates are not required to send/submit any document(s) including Confirmation Page to NTA through Post/ Fax/WhatsApp/Email/by Hand.**
- iii. NTA is facilitating to all candidates with an additional platform of UMANG and DigiLocker to download their documents like Confirmation Page, Admit Card, Score Cards, etc. Instruction will be provided in subsequent phases. Candidates are advised to visit the NTA Website and check their e-mails regularly for the latest updates.
- iv. Usage of Data and Information: NTA/Government of India can use the data provided by the End Users (test taker in this case) for the internal purpose(s) including training, research and

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development, analysis, and other permissible purposes (s). However, this information is not for use by any third party or private agency for any other use.

- v. Choice of exam cities displayed to the candidates will be based on the permanent and correspondence addresses filled during Online Application Form of **JEE** (Main) 2022.
  - vi. Candidates are advised to fill only one Application Form and to take utmost care while filling out the mobile number and e-mail address. Candidates are also advised to use the mobile number and email address that are accessible to them such as of their parent/ guardian. One mobile number and email address can be used for one Application Form only.

### **Brief Advisory regarding ongoing COVID-19 Pandemic:**

Candidates are advised to carry only the following with them into the examination venue:

- i. Admit card along with Self Declaration (Undertaking) downloaded from the NTA Website (a clear printout on A4 size paper) duly filled in.
- ii. A simple transparent Ball Point Pen.
- iii. Additional photograph, to be pasted on the attendance sheet.
- iv. Personal hand sanitizer (50 ml).
- v. Personal transparent water bottle.
- vi. Sugar tablets/fruits (like banana/apple/orange) in case the candidate is diabetic.

### Note:

- 1. All Candidates shall ensure that the information (like his/her name, mother's name, father's name, gender, date of birth, category, PwD status, mobile number, e-mail address, photograph and signature, choice of cities for exam Centre, etc.) provided by them in their online Application Form is correct and of their own. Candidates are advised to exercise the utmost care in filling up correct details in the Online Application Form. Any request for change in the particulars and uploaded scanned images at any stage will not be considered by NTA under any circumstances. NTA will not entertain the corrections sent by the candidate through Post/Fax/WhatsApp/E-mail/by Hand.
- 2. In case it is found at any time in the future that the Candidate has used/uploaded the photograph, signature, and certificate(s) of someone else in his/ her Application Form/Admit Card or he/she has tampered with his/her Admit Card/result, it would be treated as Unfair Means (UFM) Practices on his/her part and the actions will be taken under the provisions of Unfair Means Practices, as detailed in the Information Bulletin.
- 3. Candidates are NOT allowed to carry Instruments, Geometry or Pencil box, Handbag, Purse, any kind of Paper/ Stationery/ Textual material (printed or written material), Eatables and Water (loose or packed), Mobile Phone/ Earphone/ Microphone/ Pager, Calculator, DocuPen, Slide Rules, Log Tables, Camera, Tape Recorder, Electronic Watches with facilities of calculator, any metallic item or electronic gadgets/ devices in the Examination Hall/Room.
- 4. Candidates are requested to retain a copy of the Confirmation Page, Admit Card, and Scorecard of the JEE (Main) 2022 as the same will not be available after 30 June 2022.

### CHAPTER 1 INTRODUCTION

### 1.1 About National Testing Agency (NTA)

The Ministry of Education (MoE), Government of India (GoI) has established the National Testing Agency (NTA) as an independent, autonomous, and self-sustained premier testing organization under the Societies Registration Act (1860) for conducting efficient, transparent, and international standardized tests in order to assess the competency of candidates for admission to premier higher education institutions with a mission to improve equity and quality in education by developing and administering research-based valid, reliable, efficient, transparent, fair and international level assessments.

NTA has created a system that is promoting teaching (by teachers), learning (by students), and assessment (by parents and institutions). NTA strongly believes in the quality, efficiency, effectiveness, equity, and security of assessments. To practice these values, NTA is constantly engaging with its stakeholders, viz. students, parents, teachers, experts, and partner institutions.

### The objectives of NTA, inter alia, include:

- 1. To conduct efficient, transparent, and international standardized tests in order to assess the competency of candidates for admission.
- 2. To undertake research on educational, professional, and testing systems to identify gaps in the knowledge systems and take steps for bridging them.
- 3. To produce and disseminate information and research on education and professional development standards.

The Department of Higher Education, Ministry of Education, Government of India has entrusted the responsibility of conducting the Joint Entrance Examination (JEE Main) to the NTA from 2019 onwards.



# CHAPTER-2 JOINT ENTRANCE EXAMINATION (MAIN) - 2022

### 2.1 About JEE (Main) - 2022

The Joint Entrance Examination, JEE (Main) comprises two papers. **Paper 1** is conducted for admission to Undergraduate Engineering Programs (**B.E/B.Tech.**) at NITs, IIITs, other Centrally Funded Technical Institutions (CFTIs), Institutions/Universities funded/recognized by participating State Governments. JEE (Main) is also an eligibility test for JEE (Advanced), which is conducted for admission to IITs. **Paper 2** is conducted for admission to **B. Arch and B. Planning** courses in the Country. From the year 2021, Dr. APJ Abdul Kalam Technical University (AKTU), Lucknow and Madan Mohan Malviya University of Technology, Gorakhpur will be using the score sheet of JEE (Main) for admission to the B.Tech./M.Tech. (Integrated)/B.Arch. Courses in its affiliated colleges across the State.

The JEE (Main) - 2022 will be conducted in **02** (**two**) **sessions** for admissions in the next academic session. The candidates will thus benefit in the following ways:

- This will give **two** opportunities to the candidates to improve their scores in the examination if they are not able to give their best in one attempt.
- In the first attempt, the students will get a first-hand experience of taking an examination and will know their mistakes which they can improve while attempting for the second time.
- This will reduce the chances of dropping a year and droppers would not have to waste an entire year.
- If anyone missed the examination due to reasons beyond control (such as the Board examination), then he/she will not have to wait for one entire year.
- A candidate need not appear in both Sessions. However, if a candidate appears in more than one Session then his/her best of the JEE (Main) - 2022 NTA Scores will be considered for preparation of Merit List/ Ranking.
- 1. JEE (Main) 2022 Session 1 for Paper 1 (B.E./B.Tech.) will be held from 16 to 21 April 2022 followed by Session 2 from 24 to 29 May 2022. This is being done to ensure that the JEE (Main) 2022 does not interfere with the Board examinations, which may be held at different times across the States/UTs. Paper 2A and Paper 2B (B. Arch and B. Planning) will also be held twice a year (April and May 2022).
- 2. It has been decided to provide choices in one section of each subject of Paper 1 and Part-I of Paper 2A and 2B to cater to the decision of different Boards across the country regarding the reduction of the syllabus. However, the total number of questions to be attempted will remain the same (Physics -25, Chemistry -25, and Mathematics -25), wherever applicable.

# CHAPTER 3 EXAMINATION SCHEME

#### 3.1 Mode of Examination

### JEE (Main) - 2022 will be conducted in the following modes:

- a) **Paper 1** (**B.E.** /**B. Tech.**) in "Computer Based Test (CBT)" mode only.
- b) **Paper 2A (B. Arch):** Mathematics (Part-I) and Aptitude Test (Part-II) in "Computer Based Test (CBT)" mode only and Drawing Test (Part-III) in pen and paper (offline) mode, to be attempted on drawing sheet of A4 size.
- c) **Paper 2B (B. Planning):** Mathematics (Part-I), Aptitude Test (Part-II), and Planning Based Questions (Part-III) in Computer Based Test (CBT) mode only.

### 3.2 Choice of Medium of Question Papers

Medium of the Question Papers: Drawing from the National Education Policy (NEP), the JEE (Main) - 2022 will be conducted in English, Hindi, Assamese, Bengali, Gujarati, Kannada, Malayalam, Marathi, Odia, Punjabi, Tamil, Telugu, and Urdu.

S. No.	Language	Examination Centres	
1.	English	All Examination Centres	
2.	English and Hindi	All Examination Centres in India	
3.	<b>English and Assamese</b>	Examination Centres in Assam	
4.	English and Bengali	Examination Centres in West Bengal, Tripura, and	
		Andaman & Nicobar Islands	
5.	English and Gujarati	Examination Centres in Gujarat, Daman & Diu, Dadra	
		& Nagar Haveli	
6.	English and Kannada	Examination Centres in Karnataka	
7.	English and Malayalam	Examination Centres in Kerala and Lakshadweep	
8.	English and Marathi	Examination Centres in Maharashtra	
9.	English and Odia	Examination Centres in Odisha	
10.	English and Punjabi	Examination Centres in Punjab, Chandigarh, and	
		Delhi/New Delhi (including Faridabad, Ghaziabad,	
		Gurugram, Meerut, Noida/Greater Noida)	
11.	<b>English and Tamil</b>	Examination Centres in Tamil Nadu, Puducherry, and	
		Andaman & Nicobar Islands	
12.	English and Telugu	Examination Centres in Andhra Pradesh and Telangana	
13.	English and Urdu	All Examination Centres in India	

The option of language for Question Paper should be exercised while filling up the Application Form online and it cannot be changed at a later stage.

Please note that for the correctness of the questions in all the question papers, the English version will be taken as final.

### 3.3 Scheme of Examination

Subject combinations for each paper, type of questions in each paper, and mode of examination is given in the table below:

PAPER	SUBJECTS	TYPE OF QUESTIONS	MODE OF EXAMINATION
Paper 1: B.E./B.Tech.	Mathematics, Physics and Chemistry	Objective Type - Multiple Choice Questions (MCQs) and Questions for which answer is a numerical value, with equal weightage to Mathematics, Physics, and Chemistry	"Computer Based Test (CBT)" mode only
Paper 2A: B. Arch	Part-I: Mathematics  Part-II: Aptitude Test Part-III: Drawing Test	Objective Type - Multiple Choice Questions (MCQs) and Questions for which answer is a numerical value Objective Type - Multiple Choice Questions (MCQs) Questions to test drawing aptitude	"Pen and Paper Based" (offline) mode to be attempted on a Drawing
Paper 2B: B. Planning	Part-I: Mathematics  Part-II: Aptitude Test  Part-III: Planning Based Questions	Objective Type - Multiple Choice Questions (MCQs) and Questions for which answer is a numerical value Objective Type - Multiple Choice Questions (MCQs) Objective Type - Multiple Choice Questions (MCQs)	sheet of A4 size.  "Computer Based Test (CBT)" mode only

### 3.4 Pattern of Examination

### Paper1: B.E./ B. Tech. in Computer Based Test (CBT) mode:

1.	Subject wise distribution	Subject	Section A	Section B	Marks
	of Questions, Total	Mathematics	20*	10*	100
	<b>Number of Questions</b>	Physics	20*	10*	100
	and Marks	Chemistry	20*	10*	100
		Total	9	0	300

<sup>\*</sup>Each Subject will have two sections. Section A will be of Multiple-Choice Questions (MCQs) and Section B will contain Questions whose answers are to be filled in as a numerical value. In Section B, candidates have to attempt any 05 (five) questions out of 10. There will be negative marking for both Section A and Section B. For each question in Section B, enter the correct integer value of the answer using the mouse and the on-screen virtual numeric keypad in the place designated to enter the answer. For Section B, the answer should be rounded off to the nearest Integer.

2	Marking Scheme for	Correct Answer or the Most	Four marks (+4)		
	MCQs	Appropriate Answer	1 our marks (+4)		
		Incorrect Answer	Minus one mark (-1)		
		Unanswered / Marked for Review	No mark (0)		
3	Marking Scheme for	Correct Answer	Four marks (+4)		
	questions for which the	Incorrect Answer	Minus one mark (-1)		
	answer is a Numerical value	Unanswered / Marked for Review	No mark (0)		
4	Method of determining		hematics, Physics, Chemistry, and the		
	merit	conversion of the total into NTA scores			
			y merging NTA scores of all shifts		
		of all days.	1.00		
5	Method of resolving ties	Tie between candidates obtaining e			
•		B.E./B.Tech will be resolved in th	e following manner in descending		
		order:	avad by		
		1. NTA score in Mathematics, followed by			
		2. NTA score in Physics, followed by			
		<ul> <li>3. NTA score in Chemistry, followed by</li> <li>4. Candidate with less proportion of a number of attempted incorrect answers and correct answers in all the subjects in the Test, followed by</li> </ul>			
		5. Candidate with less proportion of a number of attempted incorrect answers and correct answers in Mathematics in the Test, followed by			
		6. Candidate with less proportion of a number of attempted incorrect answers and correct answers in Physics in the Test, followed by			
		7. Candidate with less proportion of a number of attempted incorrect answers and correct answers in Chemistry in the Test followed by			
		8. Older in Age followed by			
		9. Application Number in ascending	g order		

Paper 2A (B. Arch): Mathematics (Part-I) and Aptitude Test (Part-II) in Computer Based Test (CBT) mode only and Drawing Test (Part-III) in Pen and Paper Based (offline) mode, to be attempted on drawing sheet of A4 size.

1.	Subject wise	Subject	Number of Questions	Marks
	distribution of	Part I: Mathematics	20* (Section <b>A</b> ) and 10* (Section <b>B</b> )	100
	<b>Questions, Total</b>	Part II: Aptitude Test	50	200
	<b>Number of Questions</b>	Part III: Drawing Test	02	100
	and Marks	Total	82	400

\*20 questions will be MCQs and 05 (five) questions will have answers to be filled as a numerical value out of 10. There will be negative marking for both Section A and Section B. For each question in Section B, enter the correct integer value of the answer using the mouse and the onscreen virtual numeric keypad in the place designated to enter the answer. The answer should be rounded off to the nearest Integer.

	Mandina Calana Can	Compat Angrees on the most				
<u> </u>   2.	S	Correct Answer or the most	appropriate	Four marks (+4)		
	MCQs	Answer  Incorrect Answer/Multiple	Angyyan	Minus one morts (	1)	
		Incorrect Answer/Multiple A Unanswered /Marked for Ro		Minus one mark (No mark (0)	-1)	
2	(a) Mayling Sahama fau			No mark (0)		
3.	(a) Marking Scheme for	Correct Answer or the most	appropriate	Four marks (+4)		
	questions for which answer is a Numerical	Answer		Minus one monte	1)	
	value	Incorrect Answer		Minus one mark (	-1)	
I		Unanswered / Marked for R		No mark (0)		
I		Two questions are to be eva	iluated out of 100 i	narks.		
I	Drawing Test					
4.	(Part III)	Conversion of the raw sco	oro in Mothomotic	os Antitudo Tost	Drowing	
4.	Method of determining merit	Test, and Total into NTA S		es, Apinude Test,	Diawing	
	merit	Overall merit shall be prepared		TA Scores of both	shifts of	
		all days.	ared by merging iv	TA Scores of both	Silits Of	
5.	Method of resolving ties	Tie between candidates ob	taining equal Tota	NTA scores in Pa	ner 2A·	
	iviethou of resolving ties	B. Arch will be resolved in			per 271.	
		1. NTA score in Mathemat	_			
		2. NTA score in Aptitude	•			
		3. NTA score in Drawing				
		4. Candidate with less pro		ber of attempted is	ncorrect	
		answers and correct an				
I		by				
I		5. Candidate with less pro	oportion of a num	ber of attempted in	ncorrect	
		answers and correct a	nswers in Mathen	natics (Part-I) in tl	ne Test,	
		followed by				
		6. Candidate with less pro				
		answers and correct ar	nswers in Aptitude	Test (Part-II) in	the Test	
		followed by				
		7. Older in Age followed b	•			
		8. Application Number in	ascending order			
Pa	per 2B (B. Planning) Part-	I: Mathematics, Part-II: A	ptitude Test, and	Part-III: Planning	g Based	
	uestions in Computer Base					
1.	Subject wise	Subject	Number of	f Questions	Marks	
	distribution of	Part-I: Mathematics	20* (Section <b>A</b> ) at	nd 10* (Section <b>B</b> )	100	
	<b>Questions, Total</b>	Part-II: Aptitude Test	` '	0	200	
	Number of Questions	Part-III: Planning	2	.5	100	
	and Marks	Total	10	05	400	
	*20 questions will be MCO	s and 05 (five) questions w	vill have answers 1	to be filled as a nu	merical	
	_	• , 1		v		
	value out of 10. There will be negative marking for both Section A and Section B. For each question in Section B, enter the correct integer value of the answer using the mouse and the on-					
	screen virtual numeric keypad in the place designated to enter the answer. The answer should be					
11	rounded off to the nearest Integer.					
I			• .			
2.	Marking Scheme for	Correct Answer or the most	appropriate	F 1 7 A		
I		Correct Answer or the most Answer		Four marks (+4)	1)	
I	Marking Scheme for	Correct Answer or the most	Answer	Four marks (+4) Minus one mark (-1) No mark (0)	-1)	

3.	Marking Scheme for	Correct Answer or the most appropriate	Four marks (+4)		
	questions for which	Answer			
	answer is a Numerical	Incorrect Answer	Minus one mark (-1)		
	value	Unanswered / Marked for Review	No mark (0)		
4.	Method of determining	Conversion of the raw score in Mathematic	es, Aptitude Test, Planning		
	merit	Based Test, and Total into NTA Scores.			
		Overall merit shall be prepared by mergin	ng NTA Scores of all shifts		
		of all days.			
5.	<b>Method of resolving ties</b>	Tie between candidates obtaining equal	Total NTA scores in B.		
		Planning will be resolved in the following ma	anner:		
		1. NTA score in Mathematics, followed by	7		
		2. NTA score in Aptitude Test, followed b	y		
		3. NTA score in Planning Based Questions	s, followed by		
		4. Candidate with less proportion of a num	ber of attempted incorrect		
		answers and correct answers in all the subjects in the Test,			
		followed by			
		5. Candidate with less proportion of a number of attempted incorrect			
		answers and correct answers in Mathematics (Part-I) in the Test,			
		followed by			
		6. Candidate with less proportion of a num	nber of attempted incorrect		
		answers and correct answers in Aptito	ude Test (Part-II) in the		
		Test, followed by			
		7. Candidate with less proportion of a num			
		answers and correct answers in Planni	ng Based Questions (Part-		
		III) in the Test followed by			
		8. Older in Age followed by			
		9. Application Number in ascending order			

### **Important Note:**

- (a) For Multiple Choice Questions: To answer a question, the candidates need to choose one option corresponding to the correct answer or the most appropriate answer. However, if any anomaly or discrepancy is found after the process of challenges of the key verification, it shall be addressed in the following manner:
  - (i) Correct answer or the most appropriate answer: Four marks (+4)
  - (ii) Any incorrect option marked will be given minus one mark (-1).
  - (iii) Unanswered/Marked for Review will be given no mark (0).
  - (iv) If more than one option is found to be correct then Four marks (+4) will be awarded to only those who have marked any of the correct options.
  - (v) If all options are found to be correct then Four marks (+4) will be awarded to all those who have attempted the question.
  - (vi) If none of the options is found correct or a Question is found to be wrong or a Question is dropped then percent equivalence is to be established on the remaining questions whether attempted or not attempted.
- **(b) For Numerical Value Questions:** There will be no negative marking for Section B. However, if any anomaly or discrepancy is found after the process of challenges of the key verification, it shall be addressed in the following manner:
  - i. Correct Answer: Four marks (+4)

- ii. Incorrect Answer: Minus one mark (-1)
- iii. Unanswered/Marked for Review: No mark (0).
- iv. If a question is found to be incorrect or the Question is dropped then Four marks (+4) will be awarded to all those who have attempted the question. The reason could be due to human error or technical error.
- v. Candidates are advised to do the calculations with the constants given (if any) in the questions. The answer should be rounded off to the nearest Integer.

### 3.5 Duration of Test

The total time duration for Paper 1 (B.E. /B.Tech.) is given in the table below:

Paper	Subjects	Total Time Duration		
		For Non-PwD Candidates	*For PwD Candidates	
Paper 1	Physics, Chemistry,	3 hours	4 hours	
(B.E./B.Tech.)	and Mathematics			
*Note: - Compensatory time for PwD Candidates of 20 minutes for one-hour evamination				

Total time duration for Paper 2A (B. Arch), Paper 2B (B.Planning), and Paper 2A (B. Arch) & Paper 2B (B.Planning) both are given in the table below:

Paper	Subjects	Total Time Duration	
		For Non-PwD	*For PwD
		Candidates	Candidates
Paper 2A	Mathematics, Aptitude	3 hours	4 hours
(B.Arch) Only	Test and Drawing Test	3 Hours	4 nours
Paper 2B (B.Planning)	Mathematics, Aptitude		
	Test, and Planning Based	3 hours	4 hours
Only	Questions		
Paper 2A (B.Arch) and	Mathematics, Aptitude		
Paper 2B (B.Planning)	Test, Drawing Test, and	3 hours 30 minutes	4 hours 10 minutes
both	Planning Based		4 nours to innuces
DOUI	Questions		
*Note: - Compensatory time for PwD Candidates of 20 minutes for one-hour examination			

### 3.6 Syllabus of Examination

The details of the syllabus are given on the website: <a href="https://jeemain.nta.nic.in/">https://jeemain.nta.nic.in/</a>.

Moreover, to cater to the decision of different Boards across the country regarding the reduction in the syllabus, the NTA has decided to provide choice in one Section of each Subject of Paper 1 and Part I of Paper 2A and 2B. However, the total number of questions to be attempted will remain the same (Physics -25, Chemistry -25, and Mathematics -25), wherever applicable.

(Refer to Appendix-VI for details).

## CHAPTER 4 ELIGIBILITY AND QUALIFICATIONS

### 4.1 Age Limit

For appearing in the JEE (Main) - 2022, there is no age limit for the candidates. The candidates who have passed the class 12/equivalent examination in 2020, 2021, or appearing in 2022 irrespective of their age can appear in JEE (Main) - 2022 examination. However, the candidates may be required to fulfill the age criteria of the Institute(s) in which they are desirous of taking admission.

### **4.2 List of Qualifying Examinations (QE)**

- i. The **final examination of the 10+2 system,** conducted by any recognized Central/ State Board, such as Central Board of Secondary Education, New Delhi; Council for the Indian School Certificate Examinations, New Delhi; etc.
- ii. **Intermediate or two-year Pre-University** examination conducted by a recognized Board/ University.
- iii. **Final examination of the two-year course** of the Joint Services Wing of the National Defence Academy
- iv. **Senior Secondary School Examination** conducted by the National Institute of Open Schooling with a minimum of **five** subjects.
- v. Any Public School/ Board/ University examination in India or any foreign country is recognized as **equivalent to the 10+2 system** by the **Association of Indian Universities (AIU).**
- vi. Higher Secondary Certificate Vocational Examination.
- vii. A Diploma recognized by AICTE or a State board of technical education of at least 3 years duration.
- viii. **General Certificate Education** (GCE) examination (London/Cambridge/Sri Lanka) at the **Advanced (A) level.**
- ix. High School Certificate Examination of the Cambridge University or International Baccalaureate Diploma of the International Baccalaureate Office, Geneva.
- x. Candidates who have completed the Class 12 (or equivalent) examination outside India or from a Board not specified above should produce a certificate from the **Association of Indian Universities** (**AIU**) to the effect that the examination they have passed is equivalent to the Class 12 Examination.
- xi. In case the Class 12 Examination is not a public examination, the candidate must have passed at least one public (Board or Pre-University) examination earlier.

### 4.3 Year of Appearance in Qualifying Examination

Only those candidates who have passed the Class 12/equivalent examination in **2020**, **2021**, **or those who are appearing in Class 12/equivalent examination in 2022**, are eligible to appear in JEE (Main) - 2022.

Candidates who passed the Class 12/equivalent examination in 2019 or before as well as those who will appear in such examination in 2023 or later are not eligible to appear in JEE (Main) - 2022.

### 4.4 State of Eligibility

State code of eligibility means the code of the State from where the candidate has passed Class XII (or equivalent) qualifying examination by virtue of which the candidate becomes eligible to appear in JEE (Main) 2022. It is important to note that the State code of eligibility does NOT depend upon the native place or the place of residence of the candidate. For example, if a candidate appears for the Class XII (or equivalent) qualifying examination from an Institution situated in New Delhi and is a resident of Noida, Uttar Pradesh, and the candidate's State code of eligibility will be that of Delhi and **NOT** that of Uttar Pradesh.

If a candidate has passed the Class 12 (or equivalent) qualifying examination from one State but appeared for improvement from another State, the candidate's State code of eligibility will be from where the candidate first passed the Class 12 (or equivalent) examination and NOT the State from where the candidate has appeared for improvement.

Candidate passed/appearing for Class 12 from NIOS should select the State of Eligibility according to the State in which the study Centre is located.

For Indian nationals passing the Class 12 (or equivalent) examination from Nepal/Bhutan, the State code of eligibility will be determined based on a permanent address in India as given in the passport of the candidate.

The State code of eligibility of OCI/PIO passing Class 12 (or equivalent) examination in India is at par with Indian nationals. However, OCI/PIO passing the Class 12 (or equivalent) examination from an institution abroad are eligible for Other State quota seats or All India quota seats (but NOT for Home State quota seats) in all NITs, IIEST and Other-CFTIs

### CHAPTER 5 RESERVATIONS

- **5.1** Indian nationals belonging to certain categories are admitted under the seats reserved for them in accordance with the rules prescribed by 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 conditions given in the **OM No. 20013/01/2018-BC-II dated 17 January 2019**, issued by the Ministry of Social Justice and Empowerment. The criteria for **GEN-EWS** will be as per the prevailing norms and/or notifications of the Government of India.
- ➤ Other Backward Classes belonging to the **Non-Creamy Layer (OBC- NCL) 27%** of seats in every course.
  - i. OBCs should be listed in the current updated central list of OBCs (http://www.ncbc.nic.in).
  - ii. 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.
  - iii. The criteria for OBC-NCL will be as per the notification of the Government of India.
  - iv. Candidates belonging to the creamy layer of OBC are **NOT** entitled to 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.
- ➤ **Persons with Disability (PwD) 5%** seats in each of OPEN, GEN-EWS, OBC-NCL, SC, and ST category seats.
- i. Candidates with at least 40% impairment irrespective of the type of disability i.e., locomotor, visual or SEVERE dyslexic shall be eligible for the benefits of the PwD category.
- ii. Leprosy-cured candidates who are otherwise fit to pursue the courses are also included in this category.

### **5.1.1.** For Candidates claiming to the GEN-EWS category

GEN-EWS certificate (**Annexure-IA**) needs to be uploaded in the Online Application Form of JEE (Main) – 2022 which should have been issued on or after **01 January 2022** in consonance with the latest guidelines of the Government of India. If any GEN-EWS candidate fails to submit the GEN-EWS certificate (issued on or after 01 January 2022) at the time of online registration, the candidate has to upload a declaration [Declaration in Lieu of Gen-EWS Certificate at **Annexure-IB**] to that effect (Reference: **No.F.No.20013/01/2018-BC-II**).

### 5.1.2 For Candidates claiming to the OBC-NCL category

OBC-NCL certificate (**Annexure-IIA**) needs to be uploaded in the Online Application Form of JEE (Main) -2022 which should have been issued on or after **01 January 2022**, in consonance with the latest guidelines of the Government of India. If any OBC-NCL candidate fails to upload

the OBC- NCL certificate (issued on or after 01 January 2022) at the time of online registration, the candidate has to upload a declaration [Declaration in Lieu of OBC-NCL Certificate as per **Annexure-IIB**] to that effect. Visit **http://www.ncbc.nic.in** for the latest guidelines and updates on the Central List of State-wise OBCs.

### 5.1.3. For Candidates claiming to the SC or ST category

Caste (for SC) or tribe (for ST) certificate (**Annexure-III**) needs to be uploaded in the Online Application Form of JEE (Main) -2022, as per the latest guidelines of the Government of India.

### 5.1.4 For Candidates claiming to the PwD category

- Physical Disability certificate (Unique Disability Identification (UDID) Certificate or Annexure-IV (Form-PwD(II))/Annexure-V (Form-PwD(III))/Annexure-VI (Form-PwD(IV)), whichever is applicable, issued by the notified medical authority needs to be uploaded in the Online Application Form of JEE (Main) 2022.
- Dyslexic candidates need to submit **Annexure-VII** (**Form-DYSLEXIC-1**) and **Annexure-VIII** (**Form-DYSLEXIC 2**) instead of Annexure-IV (Form-PwD(II))/Annexure-V (Form-PwD(III))/Annexure-VI (Form-PwD(IV)). The certificate must mention '**SEVERE**' under the Dyslexia category to enable the candidate to get the benefit of the PwD category.

In this case, both **Annexure-VII** (Form-DYSLEXIC-1) **and Annexure-VIII** (Form-DYSLEXIC-2) must be merged in a single pdf file to upload in the Online Application Form of JEE (Main) – 2022.

**5.2** In the case of the Institutes run/aided/recognized by State Governments, the reservation policy of the respective State Governments shall be applicable.

### Notes:

- 1. The benefit of reservation for admission to NITs/IIITs and CFTIs shall be given only to those classes/castes/tribes which are in the respective Central List published by the Government of India from time to time.
- 2. 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://socialjustice.nic.in and https://ncst.nic.in).

### **5.3** Provisions relating to Persons with Disability (PwD):

As per Section 2(t) of the RPwD Act, "Persons with Disability (PwD)" means a person with long-term physical, mental, intellectual, or sensory impairment which, in interaction with barriers, hinders his full and effective participation in society equally with others.

According to Section 2(r) of the RPwD Act, 2016, "persons with benchmark disabilities" means a person with not less than forty percent (40%) of a specified disability where specified disability has

not been defined in measurable terms and includes a person with disability where specified disability has been defined in measurable terms, as certified by the certifying authority.

### 5.4 Facilities for PwD candidates to appear in the exam

As per the guidelines issued by the Department of Empowerment of Persons with Disabilities (Divyangjan) under the Ministry of Social Justice and Empowerment issued from time to time on the subject: "Written Examination for Persons with Benchmark Disabilities", A candidate with one of the benchmark disabilities [as defined in Section 2(r) of RPwD Act, 2016], holding a Disability Certificate in the format prescribed in Annexure-IV (Form-PwD(II))/Annexure-V (Form-PwD(III))/Annexure-VI (Form-PwD(IV)) or Annexure-VII (Form-DYSLEXIC-1) and Annexure-VIII (Form-DYSLEXIC 2), is entitled to the following facilities:

- a. *The facility of Scribe*, in case he/she has a **physical limitation and a scribe is essential to write the examination on his/her behalf**, being so certified in the aforesaid format by a CMO/Civil Surgeon/ Medical Superintendent of a Government Health Care Institution.
- b. *Compensatory time* of **one hour** for examination of **three hours** duration, whether such candidate uses the facility of Scribe or not.

### 5.5 Services of a Scribe

As per the office memorandum of the Ministry of Social Justice and Empowerment (Reference: **F.No. 34-02/2015-DD-III dated August 29, 2018**), the PwD candidates who are visually impaired OR dyslexic (severe) OR have a disability in the upper limbs OR have lost fingers/hands thereby preventing them from properly operating the Computer Based Test platform may avail the services of a scribe (amanuensis).

The scribe will help the Candidate in reading the questions and/or keying in the answers as per the directions of the Candidate. A scribe will NEITHER explain the questions NOR suggest any solutions.

PwD candidates who desire to avail the services of a scribe need to opt for this during the online registration of JEE (Main) – 2022. A copy of the PwD certificate (Form-PwD [II/III/IV, whichever is applicable]) OR a 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 (Main) - 2022. The formats for the PwD/Dyslexia certificate are given in Annexure-IV (Form-PwD(II))/Annexure-V (Form PwD(III))/Annexure-VII (Form-DYSLEXIC 1) and Annexure-VIII (Form-DYSLEXIC 2), whichever is applicable])

It is to be noted that the Scribe will be provided by the National Testing Agency only. The candidates will NOT be allowed to bring his/her own scribe.

If it is found at any stage that a candidate has availed the services of a scribe and/or availed the compensatory time, but does not possess the extent of disability that warrants the use of a scribe and/or grant of compensatory time, the candidate will be excluded from the process of evaluation, ranking,

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counseling, and admission. In case such a candidate has already been admitted to any Institution, the admission of the candidate will be cancelled.

The NTA does not guarantee any change in the category or sub-category (PwD status) after the submission of the Online Application Form, and in any case, no change will be entertained by NTA after the declaration of NTA Score for JEE (Main) - 2022. The category/sub-category (PwD status) entered in the JEE (Main) Database by the candidate will be used for the JEE (Advanced). Therefore, the candidates are advised to fill in the category/sub-category column very carefully.

### Note:

- 1. The minimum degree of disability should be **40%** (**Benchmark Disability**) in order to be eligible for availing reservation for persons with specified disability.
- 2. The extent of "specified disability" in a person shall be assessed in accordance with the "Guidelines for the purpose of assessing the extent of specified disability in a person included under the **Rights of Persons with Disabilities Act, 2016 (49 of 2016)"** notified in the Gazette of India by the Ministry of Social Justice and Empowerment [Department of Empowerment of Persons with Disabilities (Divyangjan)] on 4 January 2018.
- 3. No change in the category will be entertained after the last date specified by NTA for JEE (Main) 2022 Registration.

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, the admission shall stand cancelled.

### CHAPTER 6 CHOICE OF CITIES

The Cities where the JEE (Main) - 2022 will be conducted are given in **Appendix I**. While applying, candidates have to **select any four cities of their choice**. The efforts will be made to allot the city of examination to the candidates in order of choice opted by them in their online Application Form. **However, due to administrative/logistic reasons, a different city can be allotted.** 

Choice of Centre Cities will be limited to the State of Permanent Address or State of Present Address only.

In case, there are very few candidates from a City, the NTA reserves the right to merge one, two, or more cities.

The decision of the NTA regarding the allotment of the City/Centre shall be final. No further correspondence or request shall be entertained in such a case.

### CHAPTER 7 PARTICULARS TO BE FILLED IN THE ONLINE APPLICATION FORM

The Columns to be filled in the Online Application Form of JEE (Main) -2022 are as follows. All candidates shall fill up the information as given below:

S. No.	Page	Section	Fields	Remarks
1			Candidate Name	
2			Father Name	
3		Personal Details	Mother Name	
4			Candidate Date of Birth	
5			Gender	
6			Identity Type	
7			Identification Number	
8			Address	
9			Locality	Optional
10			City/Town/Village	
11			Country	From Drop Down
12			State	From Drop Down
13		5	District	From Drop Down
14		Present Address	Pincode	
15			Email Address	
16	Registration Form		Confirm Email Address	
17			Mobile Number	
18			Confirm Mobile Number	
19			Alternate Contact no	Optional
20			Address	
21			Locality	Optional
22			City/Town/Village	
23		Permanent Address	Country	From Drop Down
24			State	From Drop Down
25			District	From Drop Down
26			Pincode	
27			Password	
28		Choose Password	Confirm Password	
29		Choose Password	Security Question	
30			Security Answer	
31		Security Pin	Security Pin	to be entered as displayed on the screen
32			Candidate Name	
33			Candidate Date of Birth	
34	Amaliaati E	Personal Details	Gender	
35	Application Form	Personal Details	Father Name	
36			Mother Name	
37			Nationality	

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<u></u>			
38		State/ UT from where 12th/ Equivalent Passed/ Appearing	
39		Category	
40		If you are a PwD candidate, do you have benchmark disability (40% or more / "severe" where percentage is not defined)?	
41		Type of Disability	only visible if PwD is yes
42		Do you need a scribe (as the criteria given in the Information Bulletin)	only visible if PwD is yes
43		Are you Diabetic?	
44		Place of residence (Rural or Urban)	
45		Annual Family Income	From Drop Down
46		Mode of Preparation	From Drop Down
47		Medium of Schooling in Qualifying Examination	
48	Aadhar Details	Aadhar Details	
49		Applying for	All permissible combinations of Paper 1 and Paper 2
50		Session(s) of Exam Applying For	(From Drop Down )
51		Question Paper Medium	From Drop Down
52	Exam and Center Details	Exam State - City Choice	From Drop Down
53		Exam State - City Choice	From Drop Down
54		Exam State - City Choice 3	From Drop Down
55		Exam State - City Choice 4	From Drop Down
56		Pass Status	
57		Year of Passing/Appearing	
58		Qualifying Exam	10th or Equivalent (pre-filled)
59		Place of schooling (Rural or Urban)	
60		Type of School/College	From Drop Down
61		Qualifying Examination State of School/College	From Drop Down
62	Qualification Details (for class 10th or equivalent)	Qualifying Examination District of School/College	From Drop Down
63	or equivalency	School Board	From Drop Down
64		Result Mode	From Drop Down
65		Maximum Grade Point	
66		CGPA Obtained	visible if the result mode selected is CGPA
67		CGPA	
68		Total Marks	
69		Obtained Marks	visible if result mode selected is the percentage
70		Marks(%)	r · · · · · · · · · · · · · ·

### INFORMATION BULLETIN: JEE (Main) - 2022

71			Roll Number	
72			School/College Name	
73			address School/College Pincode	
74			Pass Status	
			Year of	
75			Passing/Appearing	
76			Qualifying Exam	12th or equivalent (pre-filled)
77			Place of schooling (Rural or Urban)	
78			Type of School/College	From Drop Down
79			Qualifying Examination State	From Drop Down
80	1		Qualifying Examination District	From Drop Down
81		0 115 / 0 1 104	School Board	From Drop Down
82		Qualification Details (for class 12th or equivalent)	Result Mode	From Drop Down
83			Maximum Grade Point	
84	1		CGPA Obtained	visible if the result mode selected is CGPA
85			CGPA	
86			Total Marks	
87			Obtained Marks	visible if result mode selected is the percentage
88			Marks(%)	percentage
89			Roll Number	
90			School/College Name address	
91			School/College Pincode	
92			Are you a Twin	
93		Additional Details	Name of other Brother/Sister as per Class X Certificate	only visible if 'Are you a Twin' is yes
94			Roll Number of Class 10th or its equivalent of the Twin	only visible if 'Are you a Twin' is yes
95			Father Qualification	Mandatory
96			Father Occupation	Mandatory
97			Mother Qualification	Mandatory
98		Parents Income Details	Mother Occupation	Mandatory
99			Guardian Qualification	Mandatory
100			Guardian Occupation	Mandatory
101	Document upload		Candidate's photograph	The size of the scanned photograph should b between 10 kb to 200 kb
102			Candidate's signature	The size of the scanned signature should b between 4 kb to 30 kb
103		Upload images	Category certificate	The size of the scanned copy of the Category certificate (SC/ST/OBC/EWS etc.) should be in pdf between 50kb to 300kb
104			PwD certificate	The size of the scanned copy of the PwD certificate should be in pdf between 50 kb to 300 kb

### CHAPTER 8 ADMIT CARD

#### e-Admit Card

The e-Admit Card would be issued provisionally to the candidates through the NTA website: <a href="https://jeemain.nta.nic.in/">https://jeemain.nta.nic.in/</a>, subject to the fulfillment of the eligibility conditions and receipt of the prescribed application fee by NTA.

The candidate has to download the Admit Card from the NTA website. The candidate will appear in the examination at the given Centre on the date and shift/timing as indicated in his/her e-Admit Card.

No candidate will be allowed to appear at the examination Centre, on the date and shift/time other than that allotted to him/her in his/her Admit Card.

In case a candidate is unable to download his/her Admit Card from the website, he/she should approach the NTA Help Line Number: **011-40759000 between 10.00 am to 5.00 pm.** 

The candidates are advised to read the instructions on the Admit Card carefully and strictly follow them during the examination.

In case of any discrepancy in the particulars of the candidate or his/her photograph and signature shown in the e-Admit Card and Confirmation Page, the candidate may immediately approach the NTA Help Line between 10.00 am to 5.00 pm. In such a case, the candidate would appear in the examination with the already downloaded Admit Card. However, NTA will take necessary action to make corrections in the record later.

The Admit Card for Session 1 of the examination may be available for download in the second week of March 2022. The timing for downloading the Admit Card for subsequent Sessions of the exam will be announced on the NTA website (<a href="https://jeemain.nta.nic.in/">https://jeemain.nta.nic.in/</a>)

### Note:

- a. The Candidates may please note that Admit Cards will not be sent by post.
- b. In no case, the duplicate Admit Card for Joint Entrance Examination (Main) 2022 would be issued at the Examination Centres.
- c. The candidates must not mutilate the Admit Card or change any entry made therein.
- d. Candidates are advised to preserve their Admit Cards in good condition for future reference.
- e. No Admit Card shall be issued to the candidates whose applications are found to be incomplete for any reasons (including indistinct/ doubtful photographs/unsigned Applications) or who do not fulfill the eligibility criteria for the examination.
- f. Issue of Admit Cards, however, shall not necessarily mean acceptance of eligibility which shall be further scrutinized at subsequent stages of the admission process.

# CHAPTER 9 SCHEDULE OF EXAMINATION

### **Schedule of Examination**

	Session 1: 16 to 21	-		
Dates of Examination	Session 2: 24 to 29 May 2022  (Exact date, shift, and city of examination for Paper 1: B.E./B. Tech and Paper 2A: B. Arch and Paper 2B: B. Planning will be made available to the Candidates on their Admit Cards)			
	Paper 1: B.E./B.Tech	"Computer Based Test (CBT)" mode only		
Mode of Examination	Paper 2A: B.Arch.	Part-I: Mathematics and Part-II: Aptitude Test in Computer Based Test (CBT) mode only  Part-III: Drawing Test in "Pen and Paper" (offline) mode, to be attempted on the Drawing sheet of A4 size.		
	Paper 2B: B. Planning	Part-I: Mathematics Part-II: Aptitude Test, and Part-III: Planning Based MCQ's in "Computer Based Test (CBT)" mode only		
	Duration of Examination	First Shift	Second Shift	
Timing of Examination	For 3 Hours	09.00 a.m. to 12.00 Noon (IST)	03.00 p.m. to 06.00 p.m. (IST)	
	For 3 Hours 30 Minutes	09.00 a.m. to 12.30 p.m. (IST)	03.00 p.m. to 06.30 p.m. (IST)	
Entry in the Examination Centre/Hall/Room, frisking, biometric registration/ record of manual attendance by Invigilator, document verification/cross-checking of Admit Card, signature, and photo match to be completed by Invigilator, etc.	07.00 a.m. to 08.30 a.m.		01.00 p.m. to 02.30 p.m.	
Instructions by the Invigilator(s)	08.30 a.m. to 08.50 a.m.		02.30 p.m. to 02.50 p.m.	
Candidates log in to read instructions	08.50 a.m.		02.50 p.m.	
<b>Test Commences</b>	09.00 a.m.		03.00 p.m.	

Note: Those appearing for B.Arch. and B.Planning (both), will have the duration of examination 3:30 hrs.

#### **CHAPTER 10**

### IMPORTANT INSTRUCTIONS FOR THE CANDIDATES

- 1. Candidates are advised to report at the Examination Center well in time i.e. 2 hours before commencement of the examination.
- 2. Candidates should take their seats immediately after the opening of the Examination Hall. If the candidates do not report in time due to any reason i.e. traffic jam, train/bus delay, etc, they are likely to miss some of the important instructions to be announced in the Examination Rooms/Halls. The NTA shall not be responsible for any delay.
- 3. The candidate must show, on-demand, the Admit Card downloaded/printed from the NTA website for admission in the examination room/hall. The Test Centre Staff on duty is authorized to verify the identity of candidates and may take steps to verify and confirm the identity credentials. Candidates are requested to extend their full cooperation. A candidate who does not possess a valid Admit Card and authorized Photo ID shall not be permitted to take the examination under any circumstances by the Centre Superintendent.
- 4. A seat indicating Roll Number will be allotted to each candidate. Candidates should find and sit in their allocated seats only. In case a candidate ventures to change his/her seat and does not sit on the seat allotted to him/her could face cancellation of candidature. No plea would be entertained in this regard.
- 5. The candidate should ensure that the Question Paper available on the computer is as per his/her opted subject indicated in the Admit Card. In case, the subject of the Question Paper is other than his/her opted subject, the same may be brought to the notice of the Invigilator concerned.
- 6. The candidates may approach the Centre Superintendent/Invigilator in the room for any technical assistance, first aid emergency, or any other information during the course of the examination.
  - For any queries or issues regarding Computer Based Test, the candidates may contact on Helpline Numbers available on Joint Entrance Examination (Main) website.
- 7. In case a candidate, by furnishing false information, appears in more than one shift/date, his candidature will be cancelled and his result will not be declared.
- 8. For those who are unable to appear on the scheduled date of test for any reason, re-test shall not be held by the NTA under any circumstances.

Note: Candidates shall appear at their own cost at the Centre on the date and shift as indicated in their Admit Card issued by the NTA. Under no circumstances the choice of cities for the Centre and shift provided in the Admit Card shall be changed.

Candidates MUST bring the following documents on the day of examination at the test centre. Candidates who will not bring these will not be allowed to sit in the examination.

- a. Print copy of Admit Card along with Self Declaration (Undertaking) downloaded from the NTA Website (a clear printout on A4 size paper) duly filled in.
- b. One passport size photograph (same as uploaded on the Online Application Form) for pasting on the specific space in the Attendance Sheet at Centre during the examination.
- c. Any one of the authorized photo IDs (must be original, valid, and non-expired) School Identity Card/ PAN card/ Driving License/ Voter ID/ Passport/ Aadhaar Card (With photograph)/E-Aadhaar with photograph/ Ration Card with photograph/ Class 12 Board Admit Card with photograph/ Bank Passbook with Photograph.
- d. PwD certificate issued by the authorized medical officer, if claiming the relaxation under PwD category

or

**PwD** Certificate regarding physical limitation in an examination to write as per Annexures given in Information Bulletin, if claiming the relaxation under PwD category.

e. A simple transparent Ball Point Pen.

### **ROUGH WORK**

All calculations/writing work is to be done only in the Rough Sheet provided at the Test Centre in the Examination Room/Hall and on completion of the test, candidates must hand over the Rough Sheets to the Invigilator on duty in the Room/Hall.

#### **CHAPTER 11**

### UNFAIR MEANS PRACTICES AND BREACH OF EXAMINATION RULES

### 11.1 Definition

Unfair Means practice is an activity that allows a candidate to gain an unfair advantage over other candidates. It includes, but is not limited to:

- a) Being in possession of any item or article which has been prohibited or can be used for unfair practices including any stationery item, communication device, accessories, eatable items, ornaments, or any other material or information relevant or not relevant to the examination in the paper concerned;
- b) Using someone to write examination (impersonation) or preparing material for copying;
- c) Breaching examination rules or any direction issued by NTA in connection with JEE (Main) 2022 examination from time to time;
- d) Assisting other candidates to engage in malpractices, giving or receiving assistance of any kind directly or indirectly or attempting to do so;
- e) Contacting or communicating or trying to do so with any person, other than the Examination Staff, during the examination time in the Examination Centre;
- f) Threatening any of the officials connected with the conduct of the examination or threatening any of the candidates;
- g) Using or attempting to use any other undesirable method or means in connection with the examination;
- h) Manipulation and fabrication of online documents viz. Admit Card, Rank Letter, Self-Declaration, etc.;
- i) Forceful entry in /exit from Examination Centre/Hall;
- j) Use or attempted use of any electronic device after entering the Examination Centre;
- k) Affixing/uploading of wrong/morphed photographs/signatures on the Application Form/Admit Card/Proforma:
- 1) Creating obstacles in smooth and fair conduct of the examination.
- m) Any other malpractices declared as Unfair Means by the NTA.

### 11.2 Punishment for using Unfairmeans practices

During the course of, before, or after the examination if a candidate indulges in any of the above or similar practices, he/she shall be deemed to have used unfair practices and booked under UNFAIR MEANS (U.F.M.) case. The candidate would be debarred for 3 years in the future and shall also be liable *for criminal action* and /or any other action as deemed fit.

### 11.3 Cancellation of Result

The result of **JEE** (**Main**) - **2022** of the candidate(s) who indulge in Unfair means Practices will be cancelled and will not be declared. Similarly, the result of those candidates who appear from the Centre other than the one allotted to them or allow another candidate/person to write the exam on his behalf will be cancelled. No plea will be entertained in this regard.

# CHAPTER 12 DISPLAY OF ANSWER KEY FOR CHALLENGE

### 12.1 Display of Answer Key for Challenges

- 1. The NTA will display Provisional Answer Key of the questions on the NTA website: https://jeemain.nta.nic.in/, with a Public Notice, issued to this effect on the said website, to provide an opportunity to the candidates to challenge the Provisional Answer Keys with a non-refundable online payment of ₹ 200/- per question challenged as processing charges. The provisional Answer Keys are likely to be displayed for two to three days.
- 2. Only paid challenges made during stipulated time through key challenge link will be considered. Challenges without justification/evidence and those filed on any other medium other than the prescribed link will not be considered.
- 3. The NTA decision on the challenges shall be final and no further communication will be entertained. NTA will not inform the Candidates individually about the outcome of the challenges made.
- 4. The subject experts will examine all the challenges received and then a final answer key will be displayed and declared.
- 5. The result will be compiled based on the final answer key declared. No grievance with regard to answer key(s) after the declaration of result/NTA Score of JEE (Main) 2022 will be entertained.

### 12.2 Display of Question Paper attempted and Recorded Responses

The NTA will display the recorded responses and Question Paper attempted by the candidates on the NTA website **https://jeemain.nta.nic.in/** prior to the declaration of the result/NTA Score. The recorded responses are likely to be displayed for two to three days.

### CHAPTER 13 JEE (MAIN) NTA SCORE FOR B.E./B.TECH, B.ARCH, AND B.PLANNING

#### 13.1 JEE (Main) NTA Score for B.E./B.Tech, B.Arch, and B.Planning

- a) Evaluation of multiple-choice questions of B.E./B.Tech, B.Arch, and B.Planning will be carried out using final answer keys and the raw (actual) marks obtained by a candidate will be considered further for computation of the result of JEE (Main) 2022.
- b) For multi-shift papers, raw (actual) marks obtained by the candidates in different shifts/sessions will be converted to NTA Score.
- c) The detailed procedure for the compilation of the NTA Score is available on NTA Website and also in the Appendix-V of the Information Bulletin.

#### 13.2 Compilation and display of Result of Paper-1 (B.E./B.Tech.) of JEE(Main) - 2022:

#### a) Compilation and display of NTA Score for Session 1 of Paper-1 (B.E. /B.Tech.):

Since Session 1 of JEE (Main) - 2022 B.E./B.Tech will be conducted in multi-shifts, NTA scores will be calculated corresponding to the raw (actual) marks obtained by a candidate. The calculated NTA scores for all the shifts will be declared on the NTA website(s). This will comprise of the NTA scores for each of the three subjects (Mathematics, Physics, and Chemistry) and the total in B.E./B.Tech of Session 1 of Paper 1 of JEE (Main) - 2022.

#### b) Compilation of NTA Score for Session 2 of Paper 1 (B.E. /B.Tech.):

Similarly, Session 2 of JEE (Main) - 2022 B.E./B.Tech will be conducted in multi-shifts, NTA scores will be calculated corresponding to the raw (actual) marks obtained by a candidate. The calculated NTA scores for all the shifts will comprise the two NTA scores for each of the three subjects (Mathematics, Physics, and Chemistry) and the total in B.E./B.Tech of Session 2 of Paper 1 of JEE (Main) -2022.

# c) Compilation and display of result including overall Merit List/Ranking of Paper 1 (B.E. /B.Tech.):

The NTA scores for each of the candidates in Total in B.E./B.Tech for Session 1 as well as for Session 2 of JEE (Main) - 2022 will be merged for compilation of results and preparation of overall Merit List/Ranking. The best of the two NTA Scores (Total) will be considered for further processing for those candidates who appeared in both sessions.

In case of a tie, i.e. when two or more candidates obtain equal Total NTA Score in JEE (Main)-2022, inter-se merit of such candidates shall be determined as per "Method of resolving ties" given in Chapter 3 for Paper 1.[3.4 (5)]

The NTA scores and rank of B.E./B.Tech of JEE (Main) -2022 for all candidates who appeared in Session 1 as well as in Session 2 for JEE (Main) -2022 will be declared on the NTA website(s). This shall comprise of the NTA scores obtained by the candidate in Session 1, NTA scores obtained in

Session 2, and NTA scores for those who appeared in both sessions (**best of the two Total NTA scores**) along with the status of those who qualify for appearing in JEE (Advanced) -2022 provided and subject to other conditions of eligibility being met. The rank shall comprise **All India rank** and **All India category rank**.

# 13.3 Compilation and display of Result of Paper 2A (B. Arch) or Paper-2B (B. Planning) of JEE (Main)-2022:

# a) Compilation and display of NTA Score for Session 1 of Paper 2A (B. Arch) or Paper 2B (B. Planning):

Since Session 1 of JEE (Main) - 2022 Paper-2A (B. Arch) or Paper-2B (B. Planning) will be conducted in multi-shifts, NTA scores will be calculated corresponding to the raw (actual) marks obtained by a candidate. The calculated NTA scores for all the shifts will be declared on the NTA website(s). This will comprise of the NTA scores for each of the three parts (Mathematics, Aptitude Test and Drawing Test or Planning Based Test) and the total in Paper 2A (B. Arch) or Paper 2B (B. Planning) of Session 1 of JEE (Main) – 2022.

#### b) Compilation of NTA Score for Session 2 of Paper 2A (B. Arch) or Paper 2B (B. Planning):

Similarly, Session 2 of JEE (Main) - 2022 Paper 2A (B. Arch) or Paper 2B (B. Planning) will be conducted in multi-shifts, NTA scores will be calculated corresponding to the raw (actual) marks obtained by a candidate. The calculated NTA scores for all the shifts will comprise of the NTA scores for each of the three parts (Mathematics, Aptitude Test, and Drawing Test or Planning Based Test) and the total in Paper 2A (B. Arch) or Paper 2B (B. Planning) of Session 2 of JEE (Main) – 2022.

# c) Compilation and display of result including overall Merit List/ Ranking of Paper 2A (B. Arch) or Paper 2B (B. Planning):

The NTA scores for each of the candidates in Total in Paper 2A (B. Arch) or Paper 2B (B. Planning) for Session 1 as well as for Session 2 of JEE (Main)-2022 will be merged for compilation of results and preparation of overall Merit List/Ranking. The best of the two NTA Scores (Total) will be considered for further processing for those candidates who appeared in both sessions.

In case of a tie, i.e. when two or more candidates obtain equal Total NTA Score in JEE(Main)-2022, inter-se merit of such candidates shall be determined as per "**Method of resolving ties**" given in Chapter- 3 for Paper-2A (B. Arch) or Paper-2B (B. Planning). [3.4 (5) Part 2].

The NTA scores and rank of Paper-2A (B. Arch) or Paper-2B (B. Planning) of JEE (Main) – 2022 for all candidates who appeared in Session 1 as well as in Session 2 for JEE (Main) - 2022 will be declared on the NTA website(s). This shall comprise of the NTA scores obtained by the candidate in Session 1, NTA scores obtained in Session 2, and NTA scores for those who appeared in both sessions (best of the two Total NTA scores). The rank shall comprise **All India rank** and **All India category rank**.

### A copy of the Final Scorecard of JEE (Main) – 2022 will be sent to the registered e-mail address of the Candidates.

#### Note:

- 1 The All India Rank shall be compiled and declared after conduct of Session 2 of JEE (Main) 2022 Examination.
- 2 No Score/Rank Card will be dispatched to the candidates and the candidates are advised to download their Score/Rank Cards from the JEE (Main) website: <a href="www.nta.ac.in/">www.nta.ac.in/</a>, https://jeemain.nta.nic.in/ only.
- 3 There shall be no provision for re-valuation/re-checking of the Score. No correspondence in this regard shall be entertained.
- 4 Only the All India Rank (AIR) is used for admissions through Central Seat Allocation Board (CSAB)/Joint Seat Allocation Authority (JoSAA) to NITs/IIITs/CFTIs/SFIs/Others.
- 5 All participating Institutions that do not use the Centralized Seat Allocation Process will prepare their own ranking based on the performance in JEE (Main) 2022 and other criteria as decided by them.
- 6 The National Testing Agency (NTA) is an examination conducting body and not an admission giving authority. Therefore, NTA does not collect the information regarding the total number of seats available in the institutions, or the eligibility and reservation criteria followed by the institutions.

#### 13.4. Re-Evaluation/Re-Checking of Result

There shall be no re-evaluation/re-checking of the result. No correspondence in this regard shall be entertained.

#### 13.5. Use of Scores of JEE (Main) – 2022 by other Organizations

The merit list/scores/result of **JEE** (Main) -2022 may be utilized by other Entities of Central/State Governments with their eligibility criteria/norms/applicable regulations/guidelines/rules.

For the Academic year 2022-23, Dr. APJ Abdul Kalam Technical University (AKTU), Lucknow, and Madan Mohan Malviya University of Technology, Gorakhpur have been authorized to use the score sheet of JEE (Main) for admission to the B.Tech./M.Tech. (Integrated)/B.Arch. Courses in their affiliated colleges across the State.

For the academic year 2022-23, admissions under MEA (Welfare) quota seats shall be based on the Joint Entrance Examination (Main).

#### CHAPTER 14 ADMISSION

Admission to NITs, IIITs, CFTIs, SFIs, State Engineering Colleges in the Participating States, and Other Participating Institutions.

## 14.1 Eligibility for Admission to NITs, IIITs, and CFTIs participating through Central Seat Allocation Board (CSAB):

Admission to B.E. / B.Tech / B.Arch / B.Planning. Courses in NITs, IIITs, and CFTIs participating through Central Seat Allocation Board will be based on All India Rank subject to the conditions as decided by the CSAB. For eligibility regarding details, candidates may refer to the website <a href="https://csab.nic.in/">https://csab.nic.in/</a>.

The eligibility criteria decided by the Council of Architecture for admission to B.Arch. course other than NITs, IIITs, CFTIs:

"No candidate shall be admitted to Architecture course unless she/he has passed an examination at the end of the qualifying examination with 50% marks in Physics, Chemistry, and Mathematics and also 50% marks in aggregate of the qualifying examination".

For B. Planning, the candidates should have passed the qualifying examination with 50 % marks in Mathematics and 50% marks in aggregate of the qualifying examination.

Subject combinations required in the qualifying examination for admission to B.E./B.Tech, B. Arch, and B. Planning Courses in NITs, IIITs, and other CFTIs shall be as under.

Course	Required Criteria based on Class 12/ Equivalent qualifying Examination
D.E.(D.E. 1	Passed qualifying examination with Physics and Mathematics as
B.E/B.Tech.	compulsory subjects along with one of the
	Chemistry/Biotechnology/Biology/ Technical Vocational subjects.
B.Arch.	Passed qualifying examination with Mathematics, Physics, Chemistry
B.Planning	Passed qualifying examination with Mathematics

The Admission Policy, as announced by the Competent Authority of the admitting institutes shall be followed at the time of admission. The Candidates are advised to satisfy themselves about their Eligibility for Admission from the respective websites of admitting authorities.

For the Academic Year (2022-23), Dr. APJ Abdul Kalam Technical University, Lucknow and Madan Mohan Malviya University of Technology, Gorakhpur will use the score sheet of JEE (Main) for admission to B. Tech, B. Arch, M. Tech (Integrated) Courses in its affiliated Colleges across the State of Uttar Pradesh.

#### 14.2 Eligibility for Admission to Other Institutions

The above-mentioned policy could also be adopted by other Technical Institutions participating in counseling through JoSAA/CSAB. In case a State opts to admit students to the engineering Colleges affiliated with State Universities, the State may prepare a separate rank list based on criteria decided by them.

For all admission-related procedures/queries, the candidates are advised to refer to the website of JoSAA, Central Seat Allocation Board (CSAB), or the concerned State Government/Institute after the declaration of result/ranks of JEE (Main) - 2022.

The letters/e-mails/grievances/queries/RTI applications/Court cases pertaining to admission related matters/procedures will not be entertained by NTA. The same may be addressed to the concerned Counseling/Authorities/Admitting Institutions.

#### 14.3 Seat Allocation Process and Admission Procedure

Candidates shall be offered admission based on their choices and All India Ranks of JEE (Main) - 2022 through a Seat Allocation Process to be announced later CSAB/JoSAA. The authentication/verification of relevant documents in support of identification, date of birth, qualifying examination, State of eligibility, category, and disability (if any) of the qualifying candidates would be done at the time of Seat Allocation/ admission process. On failing to produce any of the authentic documents, the candidate may not be considered for admission.

Gen-EWS, SC, ST, OBC, and PwD candidates will be required to produce the original certificate as per prescribed formats issued by the competent authority at the time of the Seat Allocation/admission process failing which they will not be considered for admission.

#### 14.4 Eligibility Criteria for Indian Nationals Appearing in JEE (Advanced) - 2022

(Please refer to JEE (Advanced) website <a href="https://jeeadv.ac.in/">https://jeeadv.ac.in/</a> for the latest information)

All the candidates must simultaneously fulfill each one of the following to appear for JEE (Advanced) - 2022.

#### Performance in JEE (Main) - 2022:

Candidates should be among the top 2,50,000 successful candidates (including all categories) in B.E./B.Tech. Paper of JEE (Main) - 2022.

#### **Number of Attempts:**

A candidate can attempt JEE (Advanced) a maximum of two times in two consecutive years.

#### Appearance in Class 12 (or equivalent) examination\*:

A candidate should have appeared for the Class 12 (or equivalent) examination for the first time in either 2021 or 2022 with the subjects Physics, Chemistry, and Mathematics. Candidates who had appeared in the Class 12 (or equivalent) examination, for the first time in 2020 or earlier, are NOT eligible to appear in JEE (Advanced) 2022 unless covered by the one-time special measure set out below.

\*By appearance in Class 12 (or equivalent) examination, it is meant that the Board concerned declared the result for that year irrespective of whether or not the examination was conducted.

It will be considered as an appearance even if the result of a particular candidate got withheld. Moreover, if the examination Board of Class 12 (or equivalent) declared the results for the academic year 2019-20 after 15 October 2020, then the candidates of that board who appeared for their Class XII exam in 2020 are also eligible to appear in JEE (Advanced) 2022, provided they meet all the other eligibility criteria. In case the examination Board of Class 12 (or equivalent) declared the results for the academic year 2019-20 before 15 October 2020 but the result of a particular candidate was withheld, then the candidate will not be eligible to appear in JEE (Advanced) 2022.

#### Relaxation in Criteria as a Special Case for JEE (Advanced) - 2022

One-time measure for those who passed the Class 12 (or equivalent) examination in 2020/2021 AND successfully registered for JEE (Advanced) 2021 but did NOT appear.

Candidates who appeared in Class 12 (or equivalent) examination for the first time in 2020 OR 2021 AND successfully registered for JEE (Advanced) - 2021 but were absent in BOTH the papers, i.e., Paper 1 and Paper 2, of JEE (Advanced) 2021, are eligible to directly appear for JEE (Advanced) 2022. However, they must successfully register for the JEE (Advanced) 2022 in the online registration portal and pay the registration fee. Further, these candidates would be considered in addition to and not as part of the total number of candidates who would qualify from JEE (Main) - 2022 for appearing in JEE (Advanced) - 2022.

This is a one-time measure valid only for JEE (Advanced) 2022 due to the ongoing pandemic.

These candidates must confirm their eligibility for appearing in JEE (Advanced) - 2022 by visiting the official website (https://jeeadv.ac.in) and filling in the requisite information during registration. This one-time measure does NOT apply to candidates who appeared for their Class 12 exam for the first time before 2020.

#### One-Time Measure for those Who Passed Class 12 in 2020

As a one-time special measure due to the ongoing pandemic, candidates who appeared in class 12th (or equivalent) examination in 2020 for the first time are also eligible to appear for JEE (Advanced) 2022 PROVIDED they satisfy the following two criteria simultaneously: (i) The candidate should have appeared ONLY ONCE for JEE (Advanced), either in the year 2020 or 2021; OR, have NOT appeared in any paper in both JEE (Advanced) 2020 and JEE (Advanced) 2021. (ii) These candidate(s) should appear/should have appeared in JEE (Main) 2022 and meet the cut-off score of

#### **INFORMATION BULLETIN: JEE (Main) - 2022**

the top 2,50,000 successful candidates (including all categories) for qualifying for JEE (Advanced) 2022 in their respective category.

This one-time measure is applicable to ONLY those candidates for whom the appearance in JEE (Advanced) 2022 will be their first or second attempt and does NOT apply to candidates who appeared for their class 12th exam for the first time before 2020. No candidate will be allowed to appear in JEE (Advanced) more than two times. Further, these candidates would be considered in addition to and not as part of the total number of candidates who would qualify from JEE (Main) - 2022 for appearing in JEE (Advanced) 2022.

This is a one-time measure valid only for JEE (Advanced) - 2022.

These candidates must confirm their eligibility for appearing in JEE (Advanced) 2022 by visiting the official website (https://jeeadv.ac.in) and filling in the requisite information.

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

Note: For clarifications regarding the JEE (Advanced) -2022, candidates are requested to contact the organizing body of JEE (Advanced) -2022. NTA will not entertain the queries related to JEE (Advanced).

## CHAPTER 15 TEST PRACTICE CENTRES

#### **15.1 Test Practice Centres (TPCs)**

The Ministry of Education has mandated the NTA to set up, establish and create a network of Test Practice Centres for candidates, especially in remote and rural areas to enable them to practice and be comfortable in taking a Computer Based Test (CBT). This facility is completely free of cost. Candidates can register online (on the NTA website) where they are provided a convenient TPC near their location to practice on a given computer node. This facilitates the process of being able to take a Computer Based Test (CBT).

The entire experience of using a computer is close to the actual experience of taking a CBT. All efforts are made to provide practice tests and questions so that candidates can familiarize themselves with logging into the system, go through the detailed instructions regarding the test, use the mouse or numeric keyboard on-screen (virtual) for attempting each question, scroll down to the next question, navigate between questions, review and edit their options and submit answer (refer to Appendix-IV for details).

#### CHAPTER 16 COMMON SERVICES CENTRES

#### **16.1** Common Services Centres/Facilitation Centres

Candidates who are not well conversant and submitting face difficulties in the online application due to various constraints can use the services of Common Services Centre, Ministry of Electronics and Information Technology, Government of India under the Digital India initiatives of Hon'ble Prime Minister. The Common Services Centre (CSC) scheme is a part of the ambitious National e-Governance Plan (NeGP) of the Government of India and is managed at each village panchayat level by a Village Level Entrepreneur (VLE).

There are more than 1.5 lakhs Common Services Centres (CSC) across the country which will provide the desired support to candidates from urban as well as rural areas in online submission of Application Form and payment of fee through e-wallet. The list of the Common Services Centre is available on the website: <a href="www.csc.gov.in">www.csc.gov.in</a>. To know the nearest Common Services Centre, please open the link - Find My Csc (https://findmycsc.nic.in/csc/).

#### CHAPTER 17 NATIONAL TEST ABHYAS

#### 17.1 National Test Abhyas

The National Testing Agency (NTA), India's premier autonomous testing organization for conducting entrance examinations for admission in higher education institutions, launched a mobile app called the "National Test Abhyas" - to enable candidates to take mock tests for various competitive exams such as JEE Main, NEET, UGC-NET, and other exams under the NTA's purview. The app had been launched to facilitate candidates' access to high-quality mock tests in the safety and comfort of their homes since NTA's Test-Practice Centers (TPCs) were closed during the ongoing COVID-19 pandemic.

With this facility for the candidates, India has taken the lead in restoring a semblance of normalcy in one more crucial area – education – even as we tackle these unprecedented times that have led to significant changes in life around the world.

Candidates across the country can use the App to access high-quality tests, free of cost, in a bid to be fully prepared for the upcoming JEE (Main), NEET (UG), and other competitive exams. The tests can be easily downloaded and taken off-line, thus accommodating candidates with low bandwidth internet connections.

The app works on Android-based and iOS smartphones and tablets and can be downloaded from Google Play Store or App Store. Once candidates download the app, they simply need to sign-up or register with some basic details, create a free account, and then start accessing mock tests free of cost for their selected examination(s).

In addition to that NTA has developed an extensive support system at <a href="http://nta.ac.in/abhyas/help.">http://nta.ac.in/abhyas/help.</a>

The National Test Abhyas is available on the website: <a href="https://www.nta.ac.in/Abhyas">https://www.nta.ac.in/Abhyas</a> and Play Store: <a href="https://play.google.com/store/apps/details?id=com.abhyas.nta.com">https://play.google.com/store/apps/details?id=com.abhyas.nta.com</a>

#### CHAPTER 18 MISCELLANEOUS

#### 18.1 Query Redressal System (QRS)

National Testing Agency (NTA) has established a Query Redressal System (QRS), an online webenabled system developed by NTA. QRS is the platform based on web technology that primarily aims to enable submission of queries/grievances by the Registered Candidate(s) of JEE (Main)-2022 Examination with (24x7) facility for speedy and favorable redressal of the queries/grievances. A Unique Registration Number will be generated for tracking the status of the queries/grievances.

The Registered Candidate(s) are advised to use the online facility for a speedy response.

#### 18.2 Correspondence with NTA

All the correspondence should preferably be addressed by e-mail. The email query shall be addressed only if it is not anonymous and contains the name, postal address, and contact number of the sender. An email containing vague or general queries and other queries as contained in the Information Bulletin shall not be entertained. Queries shall not be entertained from a person claiming to be representatives, associates, or officiates of the applicant candidate. The following information shall not be revealed by phone or email:

- a. Internal documentation/status.
- b. The internal decision-making process of NTA. Any claim/counterclaim thereof.
- c. Dates and venue of internal meetings or name of the staff/officers dealing with it.
- d. Any information which cannot be revealed in the opinion of NTA.

#### 18.3 Weeding Out Rules

The record of Joint Entrance Examination JEE (Main) - 2022 would be preserved up to **90 days** from the date of declaration of result.

#### 18.4 Legal Jurisdiction

All disputes pertaining to the conduct of JEE (Main) -2022 Examination including Results shall fall within the jurisdiction of Delhi only. The Director (Admin) of the NTA shall be the official by whose designation the NTA may sue or be sued.

				Annexure-IA
	G	overnment of		
	(Name a	and Address of the author	rity issuing the certif	ficate)
	INCOME AND ASSE	ET CERTIFICATE TO E WEAKER SE		ECONOMICALLY
	Certificate No		D	Date:
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		Post		DistrictPin Code
	since the gross annual Eight Lakh only) for possess any of the fold I. 5 acres of as II. Residential III. Residential IV. Residential municipalitic 2. Shri/Smt./Kur	gricultural land and above; flat of 1000 sq. ft. and abo plot of 100 sq. yards and a plot of 200 sq. yards and alies.  mari	ily"** is below Rs. 8 22. His/her family do ve; bove in notified munication areas other that belongs to the	lakh (Rupees bes not own or icipalities; an the notified he_caste
	Classes (Central List)	Signature with the	a saal of Officer	
Nican		_		
Nam-	Recent Passport size attested photograph of the applicant	would be rec	and assets of the fam quired to be certified rank of Tehsildar in	l by an officer not
* No	** Note2: The term "Fa of reservation his/her spouse *** Note3: The property	sources i.e. salary, agricult amily" for this purpose inclun, his/her parents and sibling and children below the age by held by a "Family" in differ abbed while applying the land	ides the person, who segs below the age of 18 of 18 years.	eeks the benefit 8 years as also ent places/cities

#### **Annexure- IB**

#### DECLARATION BY THE CANDIDATE IN LIEU OF GEN-EWS CERTIFICATE

Name of the candidate:			Passport size Photograph
Address:			of the Candidate
——————————————————————————————————————	C(Main) - 2022:		
Application (vulnoe) of 3EE	2 (Walli) - 2022.		
Mobile No:	Email:		
Grievances and Pensions, Cor after <b>1 January 2022</b> .	GoI, I am required to submi	a GEN-EWS certif	ficate issued on
Grievances and Pensions, Cor after <b>1 January 2022</b> .  Since I have not been able to write <b>JEE (Main) - 20</b> certificate (issued on or a	GoI, I am required to submit to collect the said certificate provisionally. I hereby	a GEN-EWS certified on time, I may kind declare that I will	ficate issued on addy be allowed upload a fresh
I understand that as per Grievances and Pensions, Cor after 1 January 2022.  Since I have not been able to write JEE (Main) - 20 certificate (issued on or a allocation.  I understand that inability twithdrawal of the GEN-EW be adjusted accordingly in the	GoI, I am required to submit to collect the said certificate 222 provisionally. I hereby after 1 January 2022) at o upload the same by the gos benefit. I also understand	e on time, I may kindeclare that I will the time of reportiven date and time	ficate issued on addy be allowed upload a fresh rting after seat will lead to the
Grievances and Pensions, Cor after <b>1 January 2022</b> .  Since I have not been able to write <b>JEE</b> ( <b>Main</b> ) - <b>20</b> certificate (issued on or a allocation.  I understand that inability t withdrawal of the GEN-EW	GoI, I am required to submit to collect the said certificate 122 provisionally. I hereby after 1 January 2022) at o upload the same by the government of the Common Rank List.	e on time, I may kindeclare that I will the time of reportiven date and time	ficate issued on addy be allowed upload a fresh rting after seat will lead to the
Grievances and Pensions, Cor after 1 January 2022.  Since I have not been able to write JEE (Main) - 20 certificate (issued on or a allocation.  I understand that inability twithdrawal of the GEN-EW be adjusted accordingly in the state of	GoI, I am required to submit to collect the said certificate 122 provisionally. I hereby after 1 January 2022) at o upload the same by the government of the Common Rank List.	e on time, I may kindeclare that I will the time of reportiven date and time	ficate issued on addy be allowed upload a fresh rting after seat will lead to the my category will

**Annexure-IIA** 

#### **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

	Smt./Kum**		Son/
Daughter** of Shri/Smt.**			of Village/
Town**	District/I	Division**	in
the State/Union Territory		belon	gs to the
under Government of India***, Resolution No.	<del></del>	•	tward class owerment's
	dated	****	
Shri/Smt./Kum		and/or	
his/her family ordinarily reside(s) is of the does NOT belong to the person	State/Union Territoryns/sections (Creamy Lay	7. This is also to certify	that <b>he/she</b>
Schedule to the Government of 36012/22/93- Estt. (SCT) dated 0 (Res.) dated 09/03/2004, further 14/10/2008, again further modified again further modified vide OM No.	08/09/93 which is modified modified vide OM No.36036/2/201	d vide OM No. 36033/3 b. 36033/3/2004-Estt. (I 13-Estt (Res) dated. 30/0.	8/2004 Estt. Res.) dated 5/2014, and
36012/22/93- Estt. (SCT) dated 0 (Res.) dated 09/03/2004, further 14/10/2008, again further modified	08/09/93 which is modified modified vide OM No.36036/2/201	d vide OM No. 36033/3  2. 36033/3/2004-Estt. (I  2. 36033/3/2004-Estt. (I  2. 30/0. dated. 30/0. dated. 13/09/2017.  District Magistrate /	8/2004 Estt. Res.) dated 5/2014, and
36012/22/93- Estt. (SCT) dated 0 (Res.) dated 09/03/2004, further 14/10/2008, again further modified again further modified vide OM No	08/09/93 which is modified modified vide OM No.36036/2/201	d vide OM No. 36033/3  2. 36033/3/2004-Estt. (I  2. 36033/3/2004-Estt. (I  2. 36033/3/2004-Estt. (I  3. 36033/3/2004-I  3.	8/2004 Estt. Res.) dated 5/2014, and

- (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).
  - (1) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
  - Revenue Officer not below therank of Tehsildar' and
  - (N) 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

Annexure- IIB

#### DECLARATION BY THE CANDIDATE IN LIEU OF OBC-NCL CERTIFICATE

	Passport
Name of the candidate:	size
	Photograph
Address:	of the Candidate
	Candidate
Application Number of JEE (Main) - 2022:	
MIT N	
Mobile No:Email:	
I understand that as per the new guideline from the Ministry of Personnel Grievances and Pensions, GoI, I am required to submit the OBC-NCL ce issued on or after 1 January 2022.	
Since I have not been able to collect the said certificate on time, I may king allowed to write JEE (Main) - 2022 provisionally. I hereby declare that upload a fresh certificate (issued on or after 1 January 2022) at the reporting after seat allocation.	t I will
I understand that inability to upload the same by the given date and time verto the withdrawal of the OBC-NCL benefit. I also understand that, if qualificategory will be adjusted accordingly in the Common Rank List.	
Signature of Father/Mother	
Name: Date:	
Signature of Applicant Date:	

Annexure-III

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

<ol> <li>This is to certify that Shri,</li> </ol>			(	
		of \	/illage/Town*	District/Division*
	of	State/Union	Territory*	belongs to the
	Scheduled Cas	te / Scheduled <sup>-</sup>	Tribe* under:-	belongs to the
The Constitution (Scheduled Castes) Order,	1950			
The Constitution (Scheduled Tribes) Order,				
The Constitution (Scheduled Tribes) Order,				
* The Constitution (Scheduled Tribes)		4		
,				
				nisation Act, 1966, the State of Himachal Pradesh Act, 1970, the and Scheduled Tribes Orders (Amendment) Act, 2002]
he Constitution (Jammu and Kashmir				
he Constitution (Andaman and Nicob	ar Islands) Scheduled Trib	es Order, 1959, a	as amended by the Scheduled Castes and Sc	heduled Tribes Order (Amendment) Act, 1976;
he Constitution (Dadra and Nagar Ha	veli) Scheduled Castes Or	der, 1962;		
he Constitution (Dadra and Nagar Ha	iveli) Scheduled Tribes Ord	der, 1962;		
he Constitution (Pondicherry) Schedu	uled Castes Order,1964;			
he Constitution (Uttar Pradesh) Sche	duled Tribes Order, 1967;			
The Constitution (Goa, Daman, and Di	u) Scheduled Castes Order	r, 1968;		
he Constitution (Goa, Daman, and Di	u) Scheduled Tribes Order	, 1968;		
he Constitution (Nagaland) Scheduled	Tribes Order, 1970;			
he Constitution (Sikkim) Scheduled (				
he Constitution (Sikkim) Scheduled T				
he Constitution (Jammu and Kashmir		1080-		
he Constitution (Scheduled Castes) O				
The Constitution (Scheduled Tribes) O				
The Constitution (Scheduled Tribes) O				
"This certificate is issued on th	e basis of the Schedul	ed Castes / Sche	eduled Tribes* Certificate issued to Shi ti /Kumari*	of Village/Town*
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"This certificate is issued on the certificate is issued on the certificate."  ate / Union Territory*  3. Shri/ Shrimati/ Kumari  e:  Please delete the word(s)  # Applicable in the case of S  IMPORTANT NOTES The term "ordinarily reside(s)**" Caste/Tribe certificates:  1. District Magistrate / Additi	se basis of the Schedul father/mother* in D wh issue  of  State/Union Territor  which are not applicab  C/ST Persons who have  used here will have the sa onal District Magistrate / 0	ed Castes / Schoof Shri /Shrima istrict/Division* no belong to the d by the Distr  Ty*  e migrated from me meaning as in Collector / Deputy	ti /Kumari* e Caste / Tribe* which is recognised as dated and / or* his / her* fami rict/Division* of the State Union Territ n another State/UT.	of Village/Town*  of the State State/Unic a Scheduled Caste / Scheduled Tribe* in the  ly ordinarily reside(s)** in Village/Town*  ory* of  Signature:  Designation  (With seal of the Office  ople Act, 1950. Officers competent to issue
"This certificate is issued on the rritory*_ ate / Union Territory*  3. Shri/ Shrimati/ Kumari  e:  Please delete the word(s)  # Applicable in the case of S  IMPORTANT NOTES The term "ordinarily reside(s)**" Caste/Tribe certificates:  1. District Magistrate / Additi	e basis of the Schedule father/mother* in in where issue issue issue state/Union Territor which are not applicabe c/ST Persons who have used here will have the sa onal District Magistrate / Gty Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division is a single product of the sa onal District Magistrate / Sub-Division	ed Castes / Schoof Shri /Shrima istrict/Division* no belong to the d by the Distr  Ty*  ble. e migrated from me meaning as in Collector / Deputy onal Magistrate /	ti /Kumari* e Caste / Tribe* which is recognised as dated and / or* his / her* famirict/Division* of the State Union Territ n another State/UT.  Section 20 of the Representation of the Pec	of Village/Town*  of the State State/Unic a Scheduled Caste / Scheduled Tribe* in the  ly ordinarily reside(s)** in Village/Town*  ory* of  Signature:  Designation  (With seal of the Office  ople Act, 1950. Officers competent to issue
#This certificate is issued on the erritory*_ ate / Union Territory*  3. Shri/ Shrimati/ Kumari  * Please delete the word(s)  # Applicable in the case of S  IMPORTANT NOTES The term "ordinarily reside(s)**" Caste/Tribe certificates:  1. District Magistrate / Additistipendiary Magistrate / Ci 2. Chief Presidency Magistrate 3. Revenue Officers not below	e basis of the Schedule father/mother* in D when issue state/Union Territor which are not applicable C/ST Persons who have used here will have the sa onal District Magistrate / Sub-Divisice / Additional Chief Presid vithe rank of Tehsildar.	ed Castes / School Castes / Sc	ti /Kumari*	of Village/Town*  of the State State/Union a Scheduled Caste / Scheduled Tribe* in the  vily ordinarily reside(s)** in Village/Town*  ory* of  Signature:  Designation  (With seal of the Office  ople Act, 1950. Officers competent to issue
#This certificate is issued on the erritory*	state/Union Territor  State/Union Territor  which are not applicab  C/ST Persons who have  used here will have the sa onal District Magistrate / O ty Magistrate / Sub-Divisic e / Additional Chief Presid v the rank of Tehsildar. e area where the candidat	ed Castes / School Castes / Sc	ti /Kumari*  e Caste / Tribe* which is recognised as dated and / or* his / her* fami rict/Division* of the State Union Territ  n another State/UT.  Section 20 of the Representation of the Peo y Commissioner / Additional Deputy Commis Taluka Magistrate / Executive Magistrate / E / Presidency Magistrate.  illy normallyreside(s).	of Village/Town*  of the State State/Unio a Scheduled Caste / Scheduled Tribe* in the   ly ordinarily reside(s)** in Village/Town*  ory* of  Signature:  Designation  (With seal of the Office  ople Act, 1950. Officers competent to issue
"This certificate is issued on the erritory*_ tate / Union Territory*  3. Shri/ Shrimati/ Kumari  Ce:  * Please delete the word(s)  # Applicable in the case of S  IMPORTANT NOTES The term "ordinarily reside(s)**" Caste/Tribe certificates:  1. District Magistrate / Additistipendiary Magistrate / Ci 2. Chief Presidency Magistrate 3. Revenue Officers not below	state/Union Territor  State/Union Territor  which are not applicab  C/ST Persons who have  used here will have the sa onal District Magistrate / 0 ty Magistrate / Sub-Divisic e / Additional Chief Presid v the rank of Tehsildar. e area where the candidat o Administrator / Develop	ed Castes / Schoof Shri /Shrima istrict/Division* no belong to the d by the Distr  Ty*  ble. e migrated from me meaning as in Collector / Deputy conal Magistrate / ilency Magistrate / te and/ or his famioment Officer (Lake)	ti /Kumari*  e Caste / Tribe* which is recognised as dated and / or* his / her* fami rict/Division* of the State Union Territ  n another State/UT.  Section 20 of the Representation of the Peo y Commissioner / Additional Deputy Commis Taluka Magistrate / Executive Magistrate / E / Presidency Magistrate.  illy normallyreside(s).	of Village/Town*  of the State State/Union a Scheduled Caste / Scheduled Tribe* in the  ly ordinarily reside(s)** in Village/Town*  ory* of  Signature:  Designation  (With seal of the Office Office of the Office

**Annexure-IV** 

#### Form-PwD (II)

#### **Disability Certificate**

# (In cases of amputation or complete permanent paralysis of limbs and in cases of blindness) (NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

(See rule 4)

Recent PP size attested photograph (showing face only) of the person with disability
Certificate No Date:
This is to certify that I have carefully examined Shri/Smt./Kumson/wife/daughter of Shri
Date of Birth (DD/MM/YY)_Ageyears, male/female Registration Nopermanent
resident of House No Ward/Village/ StreetPost OfficeDistrictState,
whose photograph is affixed above, and am satisfied that:
1. he/she is a case of:
a. locomotor disability
b. blindness
(Please tick as applicable)
2. the diagnosis in his/her case is
3. He/ She has % (in figure)percent (in words) permanent physical impairment/blindness in
relation to his/her (part of body) as per guidelines (to be specified).
4. The applicant has submitted the following document as proof of residence:-
Nature of Document Date of Issue Details of authority issuing certificate
(Signature and Seal of Authorised Signatory of notified Medical Authority)
Signature/Thumb impression of the person in whose favour disability certificate is issued.
Signature/Thumb impression of the person in whose favour disability certificate is issued.

Annexure-V

Form-PwD (III)

# Disability Certificate (In cases of multiple disabilities) (NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

Recent PP size attested photograph (showing face only) of the person with disability

(See rule 4)

Certificate No		Date:
This is to certify that I h	nave carefully examined	
Shri/Smt./Kum		son/ wife/daughter of
Shri		Date of Birth
(DD/MM/YY)	Age	years,
male/female	Registration No.	permanent resident of
House No	Ward/Village/Street	Post Office
District		
State,	whose photograph is affixed above	e, and are satisfied that:
		nt of permanent physical impairment/pecified) for the disabilities ticked

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

below, and shown against the relevant disability in the table below:

- @ e.g. Left/Right/both arms/legs
- # e.g. Single eye/both eyes
- $\pounds$  e.g. Left/Right/both ears

#### **INFORMATION BULLETIN: JEE (Main) - 2022**

_	his/her overall permanent ph	nysical impairment as per guidelines (to b
specified), is as follows:		
In figures:		
In words:		percent
. Reassessment of disability (i) not necessary Or	y is:	likely to improve/ not likely to improve.  _months, and therefore this certificate
shall be valid till (DD	/MM/YY)	months, and therefore this certificate
. The applicant has submitt	ed the following document	as proof of residence:
Nature of Document	Date of Issue	Details of authority issuing certificate
Name and Control of Manufacture	Name of Cool of Manches	Name and Carl of the Chairman
Name and Seal of Member	Name of Seal of Member	Name and Seal of the Chairperson
Signature/Thumb impressio	n of the person in	
whose favour disability cert		
•		

**Annexure-VI** 

Form-PwD (IV)

#### **Disability Certificate** (In cases other than those mentioned in Forms II and III)

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

(See rule 4)

Recent PP size

		attested photograph (showing face only) of the person with disability
Certificate No	Date:	
This is to certify that I have carefully examined		
Shri/Smt./Kumson/	wife/daughte	er of Shri
Date of Birth (DD/MM/YY)_Ageyears,		
male/femaleRegistration No permanent residen	t of House No	oWard/Village/Street
Post Office District State, wh		
that he/she is a case of disability.		
1. His/her extent of percentage of physical impairment guidelines (to be specified) and is shown against the	•	<u>=</u>
S. No. Disability	Diagnosis	Permanent physical impairment / mental disability (in %)
1 Locomotors disability		
2 Visual Impairment (blindness / low vision)		
3 Hearing impairment		
<ul><li>4 Speech and language disability</li><li>5 Intellectual disability</li></ul>		
6 Mental-illness		
7 Disability caused due to chronic neurological conditions and/or blood disorders		
(Please strike out the disabilities which are not applicable.)		
2. The above condition is progressive/non-progressive	ve/ likely to in	nprove/ not likely to improve.
Reassessment of disability is:     a. not necessary Or     b. is recommended/afteryearsshall be valid till (DD/MM/YY)	months, ar	nd therefore this certificate
4. The applicant has submitted the following docume	nt as proof of	residence:

#### **INFORMATION BULLETIN: JEE (Main) - 2022**

	37 . CD	D . CT		
	Nature of Document	Date of Issue	Details of authority issuing certificate	
	Authorized Signatory of notificated Seal)	ed Medical Authority) (	Name	
C	ountersigned			
			rintendent/Head of Government Hospital, i	n
Ca	ase the certificate is issued by	a medical authority who	o is not a government servant (with seal)}	
S	signature/Thumb impression o	f the person in		
	whose favour disability certific	_		
be v	valid only if countersigned by	the Chief Medical Off	ority who is not a government servant, it shicer of the District. Note: The principal rule	les
	e published in the Gazette tember 1996.	of India vide notifica	ation number S.O. 908(E), dated the 3	1st
200	emeer 1990.			

#### Annexure-VII

#### Form-DYSLEXIC-1

#### FORMAT OF MEDICAL CERTIFICATE / REPORT TO BE PRODUCED BY DYSLEXIC **CANDIDATE**

{To be obtained from any Government or Government approved Learning Disability Clinic/Neurodevelopmental Centre/Dyslexia Association}

		Date:			
PSYCHO-	EDUCATION I	EVALUATION REPORT			
			Passport		
Name of the candidate:			size Photograph		
Date of Birth: Candidate			of the Candidate		
	egistration in the Dyslexia Assn. (date / number):				
Registration in the Dyslexia Assn. (da					
Name of the Father/Mother/Guardian:					
Name/address and Regn. No. : of the Dyslexia Association					
Physical & Neurologic Assessment:	[	]			
Psychological Assessment:	[	]			
WISC Verbal IQ: Performance IQ:					
Full-Scale IQ:					
Interpretation:	[	]			
Educational Assessment:	[	]			
Certified that:					
1. The condition of handicap is: applicable)*.	MILD / MODE	RATE / SEVERE (tick whichev	er is		
•		d DETAILED REPORTS OF			
ASSESSMENT ARE ATTA	ACHED WITH	I THIS FORM (IN ORIGINA	L).		
*Learning Disability is a permanent devel quantify the disorder. However, the meth achievement. To avail the benefit of relax SEVERE category.	od of diagnosis is	based on significant impairment in	academic		
Signature and Name (in CAPIT	TAL LETTER	RS) of the certifying official:			
Seal:					

#### **Annexure-VIII**

#### FORM-DYSLEXIC-2

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

Testimonial Date: **Passport** size Name of the candidate: Photograph of the Date of Birth: Candidate Name and Address of the School/College: Certified that Shri/Smt/Kum \_\_\_\_\_\_ son/daughter of \_\_\_\_\_of village/town passed his/her Class 12 from this school and as per records, availed concession under dyslexic category. Signature with a seal: \* A candidate passing Class 12 or equivalent through the open school system or in private mode may submit the certificate to this effect from the competent authority in the board certifying the concessions availed under dyslexia.

Appendix - I

#### **List of Examination Cities for JEE (Main) - 2022**

JEE (Main) - 2022 will be conducted in the following Cities, provided there are sufficient numbers of candidates in the City:

#### State-wise/UT-wise list of Cities in India:

S. No.	State	District	City	City Code
1	ANDAMAN & NICOBAR ISLANDS (UT)	SOUTH ANDAMAN	PORT BLAIR	AN01
2	ANDHRA PRADESH	GUNTUR	AMARAVATHI	AP24
3	ANDHRA PRADESH	ANANTAPUR	ANANTAPUR	AP01
4	ANDHRA PRADESH	WEST GODAVARI	BHIMAVARAM	AP03
5	ANDHRA PRADESH	PRAKASAM	CHIRALA	AP04
6	ANDHRA PRADESH	CHITTOOR	CHITTOOR	AP05
7	ANDHRA PRADESH	WEST GODAVARI	ELURU	AP06
8	ANDHRA PRADESH	ANANTAPUR	GOOTY	AP25
9	ANDHRA PRADESH	NELLORE	GUDUR	AP26
10	ANDHRA PRADESH	GUNTUR	GUNTUR	AP07
11	ANDHRA PRADESH	YSR KADAPA	KADAPA	AP08
12	ANDHRA PRADESH	EAST GODAVARI	KAKINADA	AP09
13	ANDHRA PRADESH	KURNOOL	KURNOOL	AP10
14	ANDHRA PRADESH	MACHILIPATNAM	MACHILIPATNAM	AP27
15	ANDHRA PRADESH	MANGALAGIRI	MANGALAGIRI	AP28
16	ANDHRA PRADESH	KURNOOL	NANDYAL	AP29
17	ANDHRA PRADESH	GUNTUR	NARASARAOPET	AP20
18	ANDHRA PRADESH	NELLORE	NELLORE	AP11
19	ANDHRA PRADESH	PRAKASAM	ONGOLE	AP12
20	ANDHRA PRADESH	YSR KADAPA	PRODDATUR	AP21
21	ANDHRA PRADESH	EAST GODAVARI	RAJAHMUNDRY	AP13
22	ANDHRA PRADESH	SRIKAKULAM	SRIKAKULAM	AP14
23	ANDHRA PRADESH	EAST GODAVARI	SURAMPALEM	AP23
24	ANDHRA PRADESH	WEST GODAVARI	TADEPALLIGUDEM	AP30
25	ANDHRA PRADESH	WEST GODAVARI	TANUKU	AP31
26	ANDHRA PRADESH	TENALI	TENALI	AP32
27	ANDHRA PRADESH	CHITTOOR	TIRUPATHI	AP16
28	ANDHRA PRADESH	KRISHNA	VIJAYAWADA	AP17
29	ANDHRA PRADESH	VISHAKAPATNAM	VISAKHAPATNAM	AP18
30	ANDHRA PRADESH	VIZIANAGARAM	VIZIANAGARAM	AP19
31	ARUNACHAL PRADESH	WEST SIANG	BASAR	AL02
32	ARUNACHAL PRADESH	PAPUM PARE	ITANAGAR/NAHARLAGUN	AL01
33	ASSAM	BARPETA	BARPETA	AM06
34	ASSAM	DARRANG (MANGALDOI)	DARRANG (MANGALDOI)	AM07
35	ASSAM	DIBRUGARH	DIBRUGARH	AM01

36	ASSAM	GOLAGHAT	GOLAGHAT	AM08
37	ASSAM		GUWAHATI	AM02
38	ASSAM	JORHAT	JORHAT	AM03
39	ASSAM	LAKHIMPUR	LAKHIMPUR	AM09
40	ASSAM	NAGAON	NAGAON	AM10
41	ASSAM	NALBARI	NALBARI	AM11
42	ASSAM	CACHAR	SILCHAR (ASSAM)	AM04
43	ASSAM	SIVASAGAR	SIVASAGAR	AM12
44	ASSAM	SONITPUR	TEZPUR	AM05
45	BIHAR	ARARIA	ARARIA	BR21
46	BIHAR	BHOJPUR	ARRAH	BR09
47	BIHAR	ARWAL	ARWAL	BR22
48	BIHAR	AURANGABAD	AURANGABAD (BIHAR)	BR01
49	BIHAR	BANKA	BANKA	BR23
50	BIHAR	BEGUSARAI	BEGUSARAI	BR13
51	BIHAR	WEST CHAMPARAN	BETTIAH	BR20
52	BIHAR	KAIMUR	BHABUA	BR24
53	BIHAR	BHAGALPUR	BHAGALPUR	BR02
54	BIHAR	BUXAR	BUXAR	BR25
55	BIHAR	DARBHANGA	DARBHANGA	BR04
56	BIHAR	GAYA	GAYA	BR05
57	BIHAR	GOPALGANJ	GOPALGANJ	BR10
58	BIHAR	VAISHALI	HAJIPUR	BR26
59	BIHAR	JAMUI	JAMUI	BR27
60	BIHAR	JEHANABAD	JEHANABAD	BR28
61	BIHAR	KATIHAR	KATIHAR	BR29
62	BIHAR	KHAGARIA	KHAGARIA	BR30
63	BIHAR	LAKHISARAI	LAKHISARAI	BR31
64	BIHAR	MADHEPURA	MADHEPURA	BR32
65	BIHAR	MADHUBANI	MADHUBANI	BR15
66	BIHAR	EAST CHAMPARAN	MOTIHARI	BR14
67	BIHAR	MUNGER	MUNGER	BR33
68	BIHAR	MUZAFFARPUR	MUZAFFARPUR	BR06
69	BIHAR	NALANDA	NALANDA	BR11
70	BIHAR	NAWADA	NAWADA	BR16
71	BIHAR	PATNA	PATNA	BR07
72	BIHAR	PURNEA	PURNEA	BR08
73	BIHAR	SAMASTIPUR	SAMASTIPUR	BR12
74	BIHAR	ROHTAS	SASARAM	BR17
75	BIHAR	SHEIKHPURA	SHEIKHPURA	BR35
76	BIHAR	SITAMARHI	SITAMARHI	BR18
77	BIHAR	SIWAN	SIWAN	BR19
78	BIHAR	SUPAUL	SUPAUL	BR36
79	BIHAR	VAISHALI	VAISHALI	BR37
80	CHANDIGARH(UT)	CHANDIGARH	CHANDIGARH/MOHALI/PANCHKULA	CH01

	1	<u> </u>	<u> </u>	1
81	CHHATTISGARH	SARGUJA	AMBIKAPUR	CG04
82	CHHATTISGARH	BALOD	BALOD	CG05
83	CHHATTISGARH	DURG	BHILAI NAGAR/DURG	CG01
84	CHHATTISGARH	BILASPUR (CG)	BILASPUR (CG)	CG02
85	CHHATTISGARH	DANTEWADA	DANTEWADA	CG06
86	CHHATTISGARH	DHAMTARI	DHAMTARI	CG07
87	CHHATTISGARH	BASTAR	JAGDALPUR	CG08
88	CHHATTISGARH	JANJGIR-CHAMPA	JANJGIR	CG09
89	CHHATTISGARH	KORBA	KORBA	CG10
90	CHHATTISGARH	RAIGARH	RAIGARH	CG11
91	CHHATTISGARH	RAIPUR	RAIPUR	CG03
92	CHHATTISGARH	RAJNANDGAON	RAJNANDGAON	CG12
93	DADRA & NAGAR HAVELI(UT)	DADRA & NAGAR HAVELI	SILVASSA	DN01
94	DAMAN & DIU(UT)	DAMAN	DAMAN	DD01
95	DAMAN & DIU(UT)	DIU	DIU	DD02
96	DELHI	DELHI	DELHI/NEW DELHI	DL01
97	GOA	SOUTH GOA	PANAJI/MADGAON/MARGAO	GO01
98	GOA	NORTH GOA	PONDA	GO02
99	GUJARAT	AHMEDABAD	AHMEDABAD/GANDHINAGAR	GJ01
100	GUJARAT	AMRELI	AMRELI	GJ18
101	GUJARAT	VALLABHVIDYANAGAR	ANAND	GJ02
102	GUJARAT	BANASKANTHA	BANASKANTHA	GJ19
103	GUJARAT	BHARUCH	BHARUCH	GJ16
104	GUJARAT	BHAVNAGAR	BHAVNAGAR	GJ03
105	GUJARAT	KUTCH	вниј	GJ17
106	GUJARAT	BOTAD	BOTAD	GJ20
107	GUJARAT	DAHOD	DAHOD	GJ21
108	GUJARAT	GANDHIDHAM	GANDHIDHAM	GJ22
109	GUJARAT	GANDHINAGAR	GANDHINAGAR	GJ23
110	GUJARAT	PANCHMAHAL	GODHRA	GJ24
111	GUJARAT	SABARKANTHA	HIMATNAGAR	GJ14
112	GUJARAT	JAMNAGAR	JAMNAGAR	GJ06
113	GUJARAT	JUNAGADH	JUNAGADH	GJ07
114	GUJARAT	KADI	KADI	GJ25
115	GUJARAT	KHEDA	KHEDA	GJ26
116	GUJARAT	MEHSANA	MEHSANA	GJ08
117	GUJARAT	ARAVALLI	MODASA	GJ27
118	GUJARAT	NAVSARI	NAVSARI	GJ15
119	GUJARAT	PATAN	PATAN	GJ28
120	GUJARAT	PORBANDAR	PORBANDAR	GJ29
121	GUJARAT	RAJKOT	RAJKOT	GJ10
122	GUJARAT	SURAT	SURAT	GJ11
123	GUJARAT	SURENDRANAGAR	SURENDRANAGAR	GJ30
124	GUJARAT	VADODARA	VADODARA	GJ12
125	GUJARAT	VALSAD/VAPI	VALSAD/VAPI	GJ13

126	CULADAT	CID COMMATU	VEDAVAI	CI21
126	GUJARAT	GIR SOMNATH	VERAVAL	GJ31
127	GUJARAT	TAPI	VYARA	GJ32
128	HARYANA	AMBALA	AMBALA	HR01
129	HARYANA	BHIWANI	BHIWANI	HR13
130	HARYANA	FARIDABAD	FARIDABAD	HR03
131	HARYANA	GURUGRAM	GURUGRAM	HR04
132	HARYANA	HISSAR	HISSAR	HR05
133	HARYANA	JHAJJAR	JHAJJAR	HR15
134	HARYANA	JIND	JIND	HR16
135	HARYANA	KAITHAL	KAITHAL	HR17
136	HARYANA	KARNAL	KARNAL	HR06
137	HARYANA	KURUKSHETRA	KURUKSHETRA	HR07
138	HARYANA	MAHENDRAGARH	MAHENDRAGARH	HR14
139	HARYANA	PALWAL	PALWAL	HR18
140	HARYANA	PANIPAT	PANIPAT	HR08
141	HARYANA	REWARI	REWARI	HR11
142	HARYANA	ROHTAK	ROHTAK	HR12
143	HARYANA	SIRSA	SIRSA	HR20
144	HARYANA	SONIPAT	SONIPAT	HR09
145	HARYANA	YAMUNA NAGAR	YAMUNA NAGAR	HR10
146	HIMACHAL PRADESH	BILASPUR	BILASPUR (HP)	HP01
147	HIMACHAL PRADESH	CHAMBA	CHAMBA (UD)	HP12
148	HIMACHAL PRADESH	HAMIRPUR	HAMIRPUR (HP)	HP03
149	HIMACHAL PRADESH HIMACHAL PRADESH	KANGRA KULLU	KANGRA/PALAMPUR	HP04 HP10
150	HIMACHAL PRADESH	MANDI	MANDI	HP08
151	HIMACHAL PRADESH	SHIMLA	SHIMLA	HP06
153	HIMACHAL PRADESH	SIRMAUR	SIRMAUR	HP11
154	HIMACHAL PRADESH	SOLAN	SOLAN	HP07
155	HIMACHAL PRADESH	UNA	UNA	HP09
156	JAMMU & KASHMIR	ANANTNAG	ANANTNAG	JK05
157	JAMMU & KASHMIR	BADGAM	BADGAM	JK07
158	JAMMU & KASHMIR	BARAMULLA	BARAMULLA	JK01
159	JAMMU & KASHMIR	JAMMU	JAMMU	JK02
160	JAMMU & KASHMIR	KATHUA	KATHUA	JK08
161	JAMMU & KASHMIR	KUPWARA	KUPWARA	JK09
162	JAMMU & KASHMIR	PULWAMA	PULWAMA	JK06
163	JAMMU & KASHMIR	SAMBA	SAMBA	JK03
164	JAMMU & KASHMIR	SRINAGAR	SRINAGAR (J & K)	JK04
165	JAMMU & KASHMIR	UDHAMPUR	UDHAMPUR	JK10
166	JHARKHAND	BOKARO STEEL CITY	BOKARO	JH01
167	JHARKHAND	WEST SINGHBHUM	CHAIBASA	JH08
168	JHARKHAND	CHATRA	CHATRA	JH09
169	JHARKHAND	DEOGHAR	DEOGHAR (JHARKHAND)	JH10
170	JHARKHAND	DHANBAD	DHANBAD	JH02

	<u> </u>	1	<u> </u>	1
171	JHARKHAND	DUMKA	DUMKA	JH11
172	JHARKHAND	GARHWA	GARHWA	JH12
173	JHARKHAND	GIRIDIH	GIRIDIH	JH07
174	JHARKHAND	GODDA	GODDA	JH13
175	JHARKHAND	HAZARIBAGH	HAZARIBAGH	JH05
176	JHARKHAND	EAST SINGHBHUM	JAMSHEDPUR	JH03
177	JHARKHAND	KODERMA	KODERMA	JH14
178	JHARKHAND	PALAMU	PALAMU	JH15
179	JHARKHAND	RAMGARH	RAMGARH	JH06
180	JHARKHAND	RANCHI	RANCHI	JH04
181	KARNATAKA	BAGALKOT	BAGALKOT	KK19
182	KARNATAKA	BALLARI	BALLARI	KK03
183	KARNATAKA	BELAGAVI	BELAGAVI (BELGAUM)	KK02
184	KARNATAKA	BENGALURU- RURAL	BENGALURU	KK04
185	KARNATAKA	BENGALURU- URBAN	BENGALURU- URBAN	KK20
186	KARNATAKA	BIDAR	BIDAR	KK05
187	KARNATAKA	CHAMARAJNAGAR	CHAMARAJNAGAR	KK21
188	KARNATAKA	CHIKABALLAPUR	CHIKABALLAPUR	KK22
189	KARNATAKA	CHIKMAGALUR	CHIKMAGALUR	KK23
190	KARNATAKA	CHITRADURGA	CHITRADURGA	KK24
191	KARNATAKA	DAVANGERE	DAVANGERE	KK06
192	KARNATAKA	DHARWAD/HUBLI	DHARWAD	KK10
193	KARNATAKA	GADAG	GADAG	KK25
194	KARNATAKA	KALABURAGI	GULBARGA/KALABURGI	KK08
195	KARNATAKA	HASSAN	HASSAN	KK09
196	KARNATAKA	HAVERI DISTRICT	HAVERI	KK26
197	KARNATAKA	HUBLI	HUBLI	KK27
198	KARNATAKA	UTTARA KANNADA	KARWAR	KK28
199	KARNATAKA	KODAGU	KODAGU	KK29
200	KARNATAKA	KOLAR	KOLAR	KK30
201	KARNATAKA	KOPPAL	KOPPAL	KK31
202	KARNATAKA	MANDYA	MANDYA	KK18
203	KARNATAKA	DAKSHINA KANNADA	MANGALURU (MANGALORE)	KK12
204	KARNATAKA	MYSORE	MYSURU (MYSORE)	KK14
205	KARNATAKA	RAICHUR	RAICHUR	KK32
206	KARNATAKA	RAMANAGARA	RAMANAGARA	KK33
207	KARNATAKA	SHIMOGA	SHIVAMOGA (SHIMOGA)	KK15
208	KARNATAKA	TUMKUR	TUMAKURU	KK16
209	KARNATAKA	UDUPI	UDUPI/MANIPAL	KK17
210	KARNATAKA	VIJAYAPURA	VIJAYAPURA	KK34
211	KARNATAKA	YADGIR	YADGIR	KK35
212	KERALA	ALAPPUZHA	ALAPPUZHA/CHENGANNUR	KL01
213	KERALA	ANGAMALY	ANGAMALY	KL20
214	KERALA	ERNAKULAM	ERNAKULAM/MOOVATTUPUZHA	KL04
215	KERALA	IDUKKI	IDUKKI	KL05

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216	KERALA	KANNUR	KANNUR	KL07
217	KERALA	KASARAGOD	KASARAGOD	KL08
218	KERALA	KOLLAM	KOLLAM	KL09
219	KERALA	KOTTAYAM	KOTTAYAM	KL11
220	KERALA	KOZHIKODE	KOZHIKODE/CALICUT	KL12
221	KERALA	MALAPPURAM	MALAPPURAM	KL13
222	KERALA	PALAKKAD	PALAKKAD	KL15
223	KERALA	PATHANAMTHITTA	PATHANAMTHITTA	KL16
224	KERALA	KANNUR	PIYYANNUR	KL21
225	KERALA	THIRUVANANTHAPURAM	THIRUVANANTHAPURAM	KL17
226	KERALA	THRISSUR	THRISSUR	KL18
227	KERALA	WAYANAD	WAYANAD	KL19
228	LAKSHADWEEP	KAVARATTI	KAVARATTI	LD01
229	LEH & LADAKH	KARGIL	KARGIL	LL02
230	LEH & LADAKH	LEH	LEH	LL01
231	MADHYA PRADESH	ASHOK NAGAR	ASHOK NAGAR	MP21
232	MADHYA PRADESH	BALAGHAT	BALAGHAT	MP01
233	MADHYA PRADESH	BARWANI	BARWANI	MP22
234	MADHYA PRADESH	BETUL	BETUL	MP02
235	MADHYA PRADESH	BHIND	BHIND	MP23
236	MADHYA PRADESH	BHOPAL	BHOPAL	MP03
237	MADHYA PRADESH	CHHATARPUR	CHHATARPUR	MP24
238	MADHYA PRADESH	CHHINDWARA	CHHINDWARA	MP05
239	MADHYA PRADESH	DAMOH	DAMOH	MP25
240	MADHYA PRADESH	DATIA	DATIA	MP26
241	MADHYA PRADESH	DEOGHAR	DEOGHAR (MP)	MP27
242	MADHYA PRADESH	DEWAS	DEWAS	MP19
243	MADHYA PRADESH	DHAR	DHAR	MP16
244	MADHYA PRADESH	GUNA	GUNA	MP28
245	MADHYA PRADESH	GWALIOR	GWALIOR	MP06
246	MADHYA PRADESH	HOSHANGABAD	HOSHANGABAD	MP17
247	MADHYA PRADESH	INDORE	INDORE	MP07
248	MADHYA PRADESH	JABALPUR	JABALPUR	MP08
249	MADHYA PRADESH	KHANDWA	KHANDWA	MP29
250	MADHYA PRADESH	KHARGONE (WEST NIMAR)	KHARGONE (WEST NIMAR)	MP18
251	MADHYA PRADESH	MANDSAUR	MANDSAUR	MP30
252	MADHYA PRADESH	MORENA	MORENA	MP31
253	MADHYA PRADESH	NEEMUCH	NEEMUCH	MP32
254	MADHYA PRADESH	RATLAM	RATLAM	MP33
255	MADHYA PRADESH	REWA	REWA	MP11
256	MADHYA PRADESH	SAGAR	SAGAR	MP12
257	MADHYA PRADESH	SATNA	SATNA	MP13
258	MADHYA PRADESH	UJJAIN	UJJAIN	MP15
259	MADHYA PRADESH	VIDISHA	VIDISHA	MP20
260	MAHARASHTRA	AHMEDNAGAR	AHMEDNAGAR	MR01

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261	MAHARASHTRA	AKOLA	AKOLA	MR02
262	MAHARASHTRA	AMRAVATI	AMRAVATI	MR03
263	MAHARASHTRA	AURANGABAD	AURANGABAD (MH)	MR04
264	MAHARASHTRA	BEED	BEED	MR30
265	MAHARASHTRA	BHANDARA	BHANDARA	MR31
266	MAHARASHTRA	BULDHANA	BULDHANA	MR32
267	MAHARASHTRA	CHANDRAPUR	CHANDRAPUR	MR09
268	MAHARASHTRA	DHULE	DHULE	MR10
269	MAHARASHTRA	GONDIA	GONDIA	MR35
270	MAHARASHTRA	JALGAON	JALGAON	MR13
271	MAHARASHTRA	KOLHAPUR	KOLHAPUR	MR14
272	MAHARASHTRA	LATUR	LATUR	MR15
273	MAHARASHTRA	MUMBAI CITY	MUMBAI/NAVI MUMBAI	MR16
274	MAHARASHTRA	NAGPUR	NAGPUR	MR17
275	MAHARASHTRA	NANDED	NANDED	MR18
276	MAHARASHTRA	NANDURBAR	NANDURBAR	MR36
277	MAHARASHTRA	NASHIK	NASHIK	MR19
278	MAHARASHTRA	OSMANABAD	OSMANABAD	MR37
279	MAHARASHTRA	PALGHAR	PALGHAR	MR33
280	MAHARASHTRA	PARBHANI	PARBHANI	MR38
281	MAHARASHTRA	PUNE	PUNE	MR22
282	MAHARASHTRA	RAIGAD	RAIGAD	MR23
283	MAHARASHTRA	RATNAGIRI	RATNAGIRI	MR24
284	MAHARASHTRA	SANGLI	SANGLI	MR25
285	MAHARASHTRA	SATARA	SATARA	MR26
286	MAHARASHTRA	SINDHUDURG	SINDHUDURG	MR39
287	MAHARASHTRA	SOLAPUR	SOLAPUR	MR27
288	MAHARASHTRA	THANE	THANE	MR28
289	MAHARASHTRA	WARDHA	WARDHA	MR29
290	MAHARASHTRA	YAVATMAL	YAVATMAL	MR34
291	MANIPUR	IMPHAL	IMPHAL	MN01
292	MEGHALAYA	EAST KHASI HILLS	EAST KHASI HILLS	MG02
293	MEGHALAYA	SHILLONG	SHILLONG	MG01
294	MIZORAM	AIZAWL	AIZAWL	MZ01
295	NAGALAND	DIMAPUR	DIMAPUR	NL01
296	NAGALAND	KOHIMA	KOHIMA	NL02
297	ODISHA	ANGUL	ANGUL	OR10
298	ODISHA	BALANGIR	BALANGIR	OR20
299	ODISHA	BALASORE	BALASORE (BALESWAR)	OR02
300	ODISHA	BARAGARH	BARAGARH	OR21
301	ODISHA	MAYURBANJ	BARIPADA/MAYURBANJ	OR12
302	ODISHA	GANJAM	BERHAMPUR / GANJAM	OR03
303	ODISHA	BHADRAK	BHADRAK	OR11
304	ODISHA	KALAHANDI	BHAWANIPATNA / KALAHANDI	OR18
305	ODISHA	KHORDHA	BHUBANESWAR	OR04

201	ODIGITA	CI ITT A CIZ	CULTTACK	OPOZ
306	ODISHA	CUTTACK	CUTTACK	OR05
307	ODISHA	DHENKANAL	DHENKANAL	OR06
308	ODISHA	JAGATSINGHPUR	JAGATSINGHPUR	OR17
309	ODISHA	JAJPUR	JAJPUR	OR13
310	ODISHA	KORAPUT	JEYPORE (ODISHA)	OR19
311	ODISHA	JHARSUGUDA	JHARSUGUDA	OR22
312	ODISHA	KENDRAPARA KENDUJHAR	KENDRAPARA	OR14
313	ODISHA	(KEONJHAR)	KENDUJHAR (KEONJHAR)	OR15
314	ODISHA	MALKANGIRI	MALKANGIRI	OR23
215	ODICILA	PARALAKHEMUNDI	DADALAKUENUNDI (CALIADATE)	OP24
315	ODISHA	(GAJAPATI) PHULBANI	PARALAKHEMUNDI (GAJAPATI)	OR24
316	ODISHA	(KANDHAMAL)	PHULBANI (KANDHAMAL)	OR25
317	ODISHA	PURI	PURI	OR16
318	ODISHA	RAYAGADA	RAYAGADA	OR26
319	ODISHA	SUNDERGARH	ROURKELA	OR08
320	ODISHA	SAMBALPUR	SAMBALPUR	OR09
321	PUDUCHERRY	PUDUCHERRY	KARAIKAL	PO02
322	PUDUCHERRY	PUDUCHERRY	PUDUCHERRY	PO01
323	PUNJAB	AMRITSAR	AMRITSAR	PB01
324	PUNJAB	BHATINDA	BHATINDA	PB02
325	PUNJAB	FARIDKOT	FARIDKOT	PB14
326	PUNJAB	FAZILKA	FAZILKA	PB15
327	PUNJAB	FIROZPUR	FIROZPUR	PB16
328	PUNJAB	GURDASPUR	GURDASPUR	PB17
329	PUNJAB	HOSHIARPUR	HOSHIARPUR	PB13
330	PUNJAB	JALANDHAR	JALANDHAR	PB04
331	PUNJAB	LUDHIANA	LUDHIANA	PB05
332	PUNJAB	PATHANKOT	PATHANKOT	PB07
333	PUNJAB	PATIALA	PATIALA/FATEHGARH SAHIB	PB08
334	PUNJAB	RUPNAGAR	RUPNAGAR	PB18
335	PUNJAB	SAHIBZADA AJIT SINGH NAGAR	SAHIBZADA AJIT SINGH NAGAR	PB12
336	PUNJAB	SANGRUR	SANGRUR	PB11
337	PUNJAB	SRI MUKTSAR SAHIB	SRI MUKTSAR SAHIB	PB19
338	RAJASTHAN	AJMER	AJMER	RJ01
339	RAJASTHAN	ALWAR	ALWAR	RJ02
340	RAJASTHAN	BARMER	BARMER	RJ19
341	RAJASTHAN	BHARATPUR	BHARATPUR	RJ16
342	RAJASTHAN	BHILWARA	BHILWARA	RJ12
343	RAJASTHAN	BIKANER	BIKANER	RJ05
344	RAJASTHAN	CHITTORGARH	CHITTORGARH	RJ20
345	RAJASTHAN	CHURU	CHURU	RJ21
346	RAJASTHAN	DAUSA	DAUSA	RJ17
347	RAJASTHAN	DHOLPUR	DHOLPUR	RJ22
348	RAJASTHAN	HANUMANGARH	HANUMANGARH	RJ23

349	RAJASTHAN	JAIPUR	JAIPUR	RJ06
350	RAJASTHAN	JAISALMER	JAISALMER	RJ24
351	RAJASTHAN	JHUNJHUNU	JHUNJHUNU	RJ24 RJ13
352	RAJASTHAN	JODHPUR	JODHPUR	RJ07
353	RAJASTHAN	KARAULI	KARAULI	RJ18
354	RAJASTHAN	KOTA	KOTA	RJ08
355	RAJASTHAN	NAGAUR	NAGAUR	RJ14
356	RAJASTHAN	PALI	PALI	RJ25
357	RAJASTHAN	SAWAI MADHOPUR	SAWAI MADHOPUR	RJ15
358	RAJASTHAN	SIKAR	SIKAR	RJ09
359	RAJASTHAN	SIROHI	SIROHI	RJ26
360	RAJASTHAN	SRIGANGANAGAR	SRIGANGANAGAR	RJ10
361	RAJASTHAN	UDAIPUR	UDAIPUR	RJ11
362	SIKKIM	GANGTOK	GANGTOK	SM01
363	TAMIL NADU	ARIYALUR	ARIYALUR	TN24
364	TAMIL NADU	CHENGALPET	CHENGALPET	TN25
365	TAMIL NADU	CHENNAI	CHENNAI	TN01
366	TAMIL NADU	COIMBATORE	COIMBATORE	TN02
367	TAMIL NADU	CUDDALORE	CUDDALORE	TN03
368	TAMIL NADU	DHARMAPURI	DHARMAPURI	TN26
369	TAMIL NADU	DINDIGUL	DINDIGUL	TN27
370	TAMIL NADU	ERODE	ERODE	TN28
371	TAMIL NADU	KANCHIPURAM	KANCHIPURAM	TN05
372	TAMIL NADU	KANYAKUMARI	KANYAKUMARI/NAGERCOIL	TN06
373	TAMIL NADU	KARUR	KARUR	TN29
374	TAMIL NADU	KRISHNAGIRI	KRISHNAGIRI	TN21
375	TAMIL NADU	MADURAI	MADURAI	TN08
376	TAMIL NADU	NAGAPATTINAM	NAGAPATTINAM	TN30
377	TAMIL NADU	NAMAKKAL	NAMAKKAL	TN10
378	TAMIL NADU	PUDUKKOTTAI	PUDUKKOTTAI	TN31
379	TAMIL NADU	RAMANATHAPURAM	RAMANATHAPURAM	TN32
380	TAMIL NADU	SALEM	SALEM	TN11
381	TAMIL NADU	SIVAGANGA	SIVAGANGA	TN33
382	TAMIL NADU	THANJAVUR	THANJAVUR	TN12
383	TAMIL NADU	THIRUVALLUR	THIRUVALLUR	TN34
384	TAMIL NADU	THOOTHUKUDI	THOOTHUKUDI	TN13
385	TAMIL NADU	TIRUCHIRAPPALLI	TIRUCHIRAPPALLI	TN14
386	TAMIL NADU	TIRUNELVELI	TIRUNELVELI	TN15
387	TAMIL NADU	TIRUPUR	TIRUPPUR	TN22
388	TAMIL NADU	TIRUVARUR	TIRUVALLUR	TN16
389	TAMIL NADU	TIRUVANNAMALAI	TIRUVANNAMALAI	TN35
390	TAMIL NADU	NILGIRIS	UDHAGAMANDALAM	TN36
391	TAMIL NADU	VELLORE	VELLORE	TN18
392	TAMIL NADU	VILLUPURAM	VILUPPURAM	TN23
393	TAMIL NADU	VIRUDHANAGAR	VIRUDHUNAGAR	TN20

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394	TELANGANA	ADILABAD	ADILABAD	TL12
395	TELANGANA	JOGULAMBA GADWAL	GADWAL	TL13
396	TELANGANA	HAYATHNAGAR	HAYATHNAGAR	TL14
397	TELANGANA	RANGA REDDY	HYDERABAD/SECUNDERABAD	TL01
398	TELANGANA	JAGTIAL	JAGTIAL	TL15
399	TELANGANA	JANGAON	JANGAON	TL16
400	TELANGANA	KARIMNAGAR	KARIMNAGAR	TL02
401	TELANGANA	KHAMMAM	KHAMMAM	TL03
402	TELANGANA	BHADRADRI KOTHAGUDEM	KOTHAGUDEM	TL17
403	TELANGANA	MAHABUBABAD	MAHABUBABAD	TL10
404	TELANGANA	MAHBUBNAGAR	MAHBUBNAGAR	TL04
405	TELANGANA	MANCHERIAL	MANCHERIAL	TL18
406	TELANGANA	MEDAK	MEDAK	TL19
407	TELANGANA	MEDCHAL	MEDCHAL	TL20
408	TELANGANA	NALGONDA	NALGONDA	TL05
409	TELANGANA	NIZAMABAD	NIZAMABAD	TL08
410	TELANGANA	SANGAREDDY	SANGAREDDY	TL21
411	TELANGANA	SIDDIPET	SIDDIPET	TL11
412	TELANGANA	SURYAPET	SURYAPET	TL09
413	TELANGANA	VIKARABAD	VIKARABAD	TL22
414	TELANGANA	WARANGAL (RURAL)	WARANGAL	TL07
415	TRIPURA	WEST TRIPURA	AGARTALA	TA01
416	UTTAR PRADESH	AGRA	AGRA	UP01
417	UTTAR PRADESH	ALIGARH	ALIGARH	UP02
418	UTTAR PRADESH	PRAYAGRAJ	ALLAHABAD/PRAYAGRAJ	UP03
419	UTTAR PRADESH	AMBEDKAR NAGAR	AMBEDKAR NAGAR	UP25
420	UTTAR PRADESH	AMETHI	AMETHI	UP44
421	UTTAR PRADESH	AZAMGARH	AZAMGARH	UP19
422	UTTAR PRADESH	SAMBHAL	ВАНЈОІ	UP46
423	UTTAR PRADESH	BAHRAICH	BAHRAICH	UP47
424	UTTAR PRADESH	BALLIA	BALLIA	UP20
425	UTTAR PRADESH	BANDA	BANDA	UP26
426	UTTAR PRADESH	BARABANKI	BARABANKI	UP27
427	UTTAR PRADESH	BAREILLY	BAREILLY	UP04
428	UTTAR PRADESH	BASTI	BASTI	UP28
429	UTTAR PRADESH	BIJNOR	BIJNOR	UP21
430	UTTAR PRADESH	BUDAUN	BUDAUN	UP48
431	UTTAR PRADESH	BULANDSHAHR	BULANDSHAHR	UP29
432	UTTAR PRADESH	CHANDAULI	CHANDAULI	UP41
433	UTTAR PRADESH	DEORIA	DEORIA	UP30
434	UTTAR PRADESH	ETAWAH	ETAWAH	UP31
435	UTTAR PRADESH	AYODHYA	FAIZABAD	UP06
436	UTTAR PRADESH	FATEHPUR	FATEHPUR	UP49
437	UTTAR PRADESH	FIROZABAD	FIROZABAD	UP22

438	UTTAR PRADESH	GHAZIABAD	GHAZIABAD	UP07
439	UTTAR PRADESH	GHAZIPUR	GHAZIPUR	UP23
440	UTTAR PRADESH	GONDA	GONDA	UP50
441	UTTAR PRADESH	GORAKHPUR	GORAKHPUR	UP08
442	UTTAR PRADESH		HAPUR (PANCHSHEEL NAGAR)	UP51
443	UTTAR PRADESH	HAPUR (PANCHSHEEL NAGAR) HARDOI	HARDOI	UP52
444	UTTAR PRADESH	HATHRAS	HATHRAS	UP53
445	UTTAR PRADESH	JALAUN		UP32
446	UTTAR PRADESH	JAUNPUR	JALAUN (ORAI) JAUNPUR	UP24
447	UTTAR PRADESH	JHANSI	JHANSI	UP10
448	UTTAR PRADESH	KANPUR RURAL	KANPUR	UP11
449	UTTAR PRADESH	KAUSHAMBI	KAUSHAMBI	UP54
450	UTTAR PRADESH	KUSHINAGAR	KUSHINAGAR	UP33
451	UTTAR PRADESH	LAKHIMPUR KHERI	LAKHINPUR KHERI	UP34
452	UTTAR PRADESH	LALITPUR	LALITPUR	UP55
453	UTTAR PRADESH	LUCKNOW	LUCKNOW	UP12
454	UTTAR PRADESH	MAINPURI	MAINPURI	UP56
455	UTTAR PRADESH	MATHURA	MATHURA	UP13
456	UTTAR PRADESH	MAU	MAU	UP35
457	UTTAR PRADESH	MEERUT	MEERUT	UP14
458	UTTAR PRADESH	MIRZAPUR	MIRZAPUR	UP36
459	UTTAR PRADESH	MORADABAD	MORADABAD	UP15
460	UTTAR PRADESH	MUZAFFARNAGAR	MUZAFFARNAGAR	UP16
461	UTTAR PRADESH	SIDDHARTHNAGAR	NAUGARH	UP57
462	UTTAR PRADESH	GAUTAM BUDDHA NAGAR	NOIDA/GREATER NOIDA	UP09
463	UTTAR PRADESH	PRATAPGARH	PRATAPGARH	UP43
464	UTTAR PRADESH	RAI BAREILLY	RAI BAREILLY	UP37
465	UTTAR PRADESH	RAMPUR	RAMPUR	UP58
466	UTTAR PRADESH	SAHARANPUR	SAHARANPUR	UP38
467	UTTAR PRADESH	SHAHJAHANPUR	SHAHJAHANPUR	UP39
468	UTTAR PRADESH	SITAPUR	SITAPUR	UP17
469	UTTAR PRADESH	SONBHADRA	SONBHADRA	UP42
470	UTTAR PRADESH	SULTANPUR	SULTANPUR	UP40
471	UTTAR PRADESH	UNNAO	UNNAO	UP59
472	UTTAR PRADESH	VARANASI	VARANASI	UP18
473	UTTARAKHAND	ALMORA	ALMORA	UK09
474	UTTARAKHAND	DEHRADUN	DEHRADUN	UK01
475	UTTARAKHAND	HALDWANI	HALDWANI	UK02
476	UTTARAKHAND	HARIDWAR	HARIDWAR	UK03
477	UTTARAKHAND	NAINITAL	NAINITAL	UK04
478	UTTARAKHAND	TEHRI GARHWAL	NEW TEHRI	UK10
479	UTTARAKHAND	PANTNAGAR	PANTNAGAR	UK05
480	UTTARAKHAND	PAURI GARHWAL	PAURI GARHWAL	UK08
481	UTTARAKHAND	ROORKEE	ROORKEE	UK06
482	UTTARAKHAND	UDHAM SINGH NAGAR	UDHAM SINGH NAGAR	UK07

#### INFORMATION BULLETIN: JEE (Main) - 2022

483	WEST BENGAL	PASCHIM BARDHAMAN	ASANSOL	WB01
484	WEST BENGAL	BANKURA	BANKURA	WB16
485	WEST BENGAL	PURBA BARDHAMAN	BURDWAN (BARDHAMAN)	WB02
486	WEST BENGAL	DARJEELING	DARJEELING	WB18
487	WEST BENGAL	DURGAPUR	DURGAPUR	WB04
488	WEST BENGAL	HOOGHLY	HOOGHLY	WB06
489	WEST BENGAL	HOWRAH	HOWRAH	WB07
490	WEST BENGAL	JALPAIGURI	JALPAIGURI	WB19
491	WEST BENGAL	NADIA	KALYANI	WB08
492	WEST BENGAL	KOLKATA	KOLKATA	WB10
493	WEST BENGAL	MALDA	MALDA	WB20
494	WEST BENGAL	MURSHIDABAD	MURSHIDABAD	WB21
495	WEST BENGAL	COOCH BEHAR	NADIA	WB17
496	WEST BENGAL	NORTH 24 PARGANAS	NORTH 24 PARGANAS	WB12
497	WEST BENGAL	PASCHIM MEDINIPUR	PASCHIM MEDINIPUR	WB13
498	WEST BENGAL	PURBA MEDINIPUR	PURBA MEDINIPUR	WB14
499	WEST BENGAL	SILIGURI	SILIGURI	WB11
500	WEST BENGAL	SOUTH 24 PARGANAS	SOUTH 24 PARGANAS	WB15
501	WEST BENGAL	BIRBHUM	SURI	WB22
502	OUT-SIDE INDIA	MANAMA	BAHRAIN	ZZ01
503	OUT-SIDE INDIA	COLOMBO	COLOMBO	ZZ02
504	OUT-SIDE INDIA	DOHA	DOHA	ZZ03
505	OUT-SIDE INDIA	DUBAI	DUBAI	ZZ04
506	OUT-SIDE INDIA	JAKARTA	JAKARTA	ZZ13
507	OUT-SIDE INDIA	KATHMANDU	KATHMANDU	ZZ05
508	OUT-SIDE INDIA	KUALA LAMPUR	KUALA LAMPUR	ZZ11
509	OUT-SIDE INDIA	KUWAIT CITY	KUWAIT	ZZ10
510	OUT-SIDE INDIA	LAGOS	LAGOS/ABUJA	ZZ12
511	OUT-SIDE INDIA	MUSCAT	MUSCAT	ZZ06
512	OUT-SIDE INDIA	RIYADH	RIYADH	ZZ07
513	OUT-SIDE INDIA	SHARJAH	SHARJAH	ZZ08
514	OUT-SIDE INDIA	SINGAPORE	SINGAPORE	ZZ09

Appendix -II

# Procedure for Online Payment of Fee and Helpline for Payment Related Queries

After completing Step 2 of the **Online** Application Form, the candidate may remit the examination fee (**Step 3**) in the following manner:

- Check the validity of the Debit/ Credit Card and keep it ready with you while logging on to the website for submitting Application Form. The candidates should enter the information asked for and make payment through a Debit/ Credit Card.
- Through Net Banking, check the balance in your account and keep all credentials ready with you while logging on to the website for making payment. The candidates should log in with his/her credentials of net banking and make payments accordingly.
- For payment through a UPI Service, check whether there is a requisite balance in the Bank Account / Wallet to which the concerned UPI is linked.
- For payment through Paytm, check whether there is a requisite balance in the Account / Wallet to which it is linked.

Prescribed Examination Fee (please see the Information at a Glance) can be paid through any Bank/Payment Gateway in any Payment Mode [service/processing charges per transaction and GST applicable thereon @ 18 % are to be borne by the candidate

S. N o	Mode of Payme nt	10	CICI BANK		HDI	HDFC BANK CANARA BANK		STATE BANK OF INDIA		PAYT	M		
	Net Bankin	ICICI	NIL Charge	:	HDFC	NIL Charge	Canara	Bank	NIL Charg e	SBI	Rs 5.00+GST	Rs 4 +GST	
1	g	Other Banks	4.00 + GST		Other Banks	4.00 + GST	Other E	Banks	5.00 + GST	Other Banks			
2	All Debit	ICICI or Other	Transacti on upto Rs 2000/-	0 %	HDFC or	Transac tion 0 upto % Rs 2000/-	Canar a Bank	Nil		Nil	Transaction upto Rs 2000/-	Transaction upto Rs 2000/-	Only Rupay card, no charge.
2	Card	Banks	Transacti on above Rs 2000/-	0.5 % + GST	Other Banks	Transac 0 % above Rs 2000/-	or Other Bank s	Charg e			Transaction above Rs 2000/-	Transaction above Rs 2000/-	Only Rupay card, no charge.
3	Credit Card	Domestic	0.40% of T	ransaction	Domest ic	0.40% of Fee + GST	Domest	tic	0.80 % of Fee + GST	Domestic	0.80% of Fee+ GST (Minimum Rs 11/-)	Domestic	0.8% + GST
		Internatio nal	2.35% of T value	ransaction	Internat ional	Nil Charge	Internat	tional	2.35 % of Fee+ GST	Internatio nal	3.50% of Fee+ GST (Minimum Rs 11/-)	International	3.5% + GST
4	Unified Payme nt Interfa ce (UPI)	ICICI or other banks	Transacti on upto Rs 2000/- Transacti on above Rs 2000/-	0 % 5.0 % + GST	Ni	l Charge					Transaction upto Rs 2000/- Transaction above Rs 2000/-	Transaction upto Rs 2000/- Transaction above Rs 2000/-	0 %
	(OFI)		KS 2000/-								RS 2000/-	PAYTM Wallet Paytm postpaid (Apply now, Pay later)	1.10%+G ST 1.50% + GST

Note: In case, the fee payment status is not 'OK', or the Confirmation Page of the Online Application is not generated after fee payment (completion of Step 3) of the candidate is advised to

contact the helpline number/email of the concerned Bank/Payment Gateway Integrator, as mentioned below:-

# (a) If Paying through State Bank of India (SBI):

Level	Name	Email ID	Contact Number
1	Helpdesk	dgmcs.cc@sbi.co.in	18004253800
2	Helpdesk3	<u>sbi.05222@sbi.co.in</u>	08026599990
3	Customer	agmcustomer.Ihodel@sbi.co.in	1800112211
	Care		
4	Through	UNHAPPY (add text)	8008202020
	SMS		

# (b) If Paying through Canara Bank:

Level	Name	Email ID	<b>Contact Number</b>
1	Helpdesk	pgsupport@billdesk.com	01202400850/1
			9971262371
2	Complaint	genadmnronoida@canarabank.com	01202400850/1
	Management Services	0%	
3	Customer Care	genadmnronoida@canarabank.com	9971262371
4	Through SMS	genadmnronoida@canarabank.com	01202400850/1

# (c) If Paying through HDFC Bank:

Level	Name	Email ID	Contact Number
1	Shri Vikram Singh	vikram.singh4@hdfcbank.com	9799810080
2.	Amit Singh	amit.singh26@hdfcbank.com	7428869770
3	Shri Ripon Bhattacharjee	ripon.bhattacharjee@hdfcbank.com	9625031697

# (d) If Paying through ICICI Bank:

Level	Name	Email ID	<b>Contact Number</b>
1	Aiysha Khatun	support.nta@ingenico.com	01204728426
2	Vishal Kumar	vishal.kumar5@icicibank.com	7428928047
3	Mohit Bhatia	mohit.bhatia@icicibank.com	9810086455

# (e) If Paying through PAYTM:

Level	Name	Email ID	Contact Number
1	Shailesh	education.support@paytm.com	0120-4789525
2	Ambreen Fatma	education.support@paytm.com	0120-4789526

### Appendix-III

#### **Computer Based Test (CBT)**

The major examinations being conducted by NTA are Computer-Based Tests (CBT). A CBT requires candidates to sit in front of a computer terminal (node) allocated to them against their Roll number and Admit card. After logging the candidate will get detailed instructions for the examinations. At the designated time of the start of the examination, the candidates will be able to proceed and see the questions on the computer screen using the computer mouse. Candidates will have the option to change/modify/edit/answers already entered at any time during the examination.

# **Procedure for appearing in Computer Based Test (CBT):**

# (Sample/mock test will be available on NTA website: www.nta.ac.in for hands-on practice)

- (a) A computer terminal (node) indicating Roll Number will be allocated to each candidate. Candidates should find and sit on their allocated computers only. Any candidate found to have changed room/hall or the computer on their own other than the one allotted would lead to cancellation of candidature and no plea in this regard would be entertained.
- (b) For login, the candidate will have to enter a **login ID and password**. The computer terminal allotted to the candidate will display the WELCOME login screen, Candidate's photograph and NET subject opted by the candidate.

# 

(c) After login, the candidate shall be able to see the detailed instructions for the examination. Candidates are advised to go through the instructions carefully regarding the type of questions and marking scheme. At the designated time of the start of the examination, the candidates will be able to proceed and see the questions on the computer screen.

Welcome, Atul Singh

### Please read the instructions carefully

# **General Instructions:**

- 1. The total duration of the examination is 180 minutes for Paper 1 (B.E./B.Tech) and 210 minutes for (B.Arch and B.Planning) both.
- 2. The clock will be set at the server. The countdown timer in the top right corner of the screen will display the remaining time available for you to complete the examination. When the timer reaches zero, the examination will end by itself. You will not be required to end or submit your examination.
- 3. The Question Palette displayed on the right side of the 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.
- 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 simply indicates that you would like to look at that question again.
- 5. You can click on the ">" arrow which appears to the left of the question palette to collapse the question palette thereby maximizing the question window. To view the question palette again, you can click on "<" which appears on the right side of the question window.
- 6. You can click on your "Profile" image on the top right corner of your screen to change the language during the exam for the entire question paper. On clicking on the Profile image, you will get a drop-down to change the question content to the desired language.
- 7. You can click on to navigate to the bottom and to navigate to the top of the question area, without scrolling.

### **Navigating to a Question:**

- 8. To answer a question, do the following:
  - a. Click on the question number in the Question Palette at the right of your screen to go to that question directly. Note that using this option does NOT save your answer to the current question.

- b. Click on **Save & Next** to save your answer for the current question and then go to the next question.
- c. Click on **Mark for Review & Next** to save your answer for the current question, mark it for review, and then go to the next question.

### **Answering a Question:**

- 9. Procedure for answering a Multiple Choice Type question:
- a. To select your answer, click on the button of one of the options.
- b. To deselect your chosen answer, click on the button of the chosen option again or click on the **Clear Response** button.
- c. To change your chosen answer, click on the button of another option.
- d. To save your answer, you must click on the Save & Next button
- e. To mark the question for review, click on the 'Mark for Review & Next' button.
- 10. To change your answer to a question that has already been answered, first select that question for answering and then follow the procedure for answering that type of question.

# Navigating through sections:

- 11. Sections in this 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 you are currently viewing is highlighted.
- 12. After clicking the **Save and Next** button on the last question for a Section, you will automatically be taken to the first question of the next section.
- 13. You can shuffle between sections and questions anytime during the examination as per your convenience only during the time stipulated.
- 14. The candidate can view the corresponding section summary as part of the legend that appears in every section above the question palette.

# **Instruction for Question:**

15. For the correctness of the translation for a particular language, only the **English version** will be considered as the final version for evaluation purposes.

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 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.

The on-screen computer clock counter of every candidate will be set at the server. The countdown timer on the top right side of the 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. The candidates will not be required to end or submit the examination.

The Question Palette displayed on the screen will show the status of each question using one of the following symbols:



The question(s) "Answered and Marked for Review" status for a question indicates that the candidates would like to have a relook at that question again. A candidate has the option of answering a question and simultaneously "Marked for Review", these 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 any time during the examination by clicking on the corresponding question number icon displayed on the Question Palette of the corresponding section.

- (d) The candidates can click on the ">" arrow which appears to the left of the question palette to collapse the question palette thereby maximizing the question viewing window. To view the question palette again, the candidate can click on "<" which appears on the right side of the question window.
- (e) Candidates 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.
- (f) The full paper can be viewed by clicking the "Question Paper" icon on the top right corner of the screen.
- (g) Blank Sheets for doing Rough Work/calculations shall be provided to the candidates. The Blanks Sheets would have a Header page for the candidates to write down his/her Name and Roll Number. All calculations/writing work is to be done only in the Blank Sheets provided at the Centre in the Examination Room/Hall and on completion of the test candidates must hand over the rough sheets to the invigilator on duty in the Room/Hall.
- (h) Navigating to a Question To navigate between questions within a Paper, the 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 and Next" to save the answer to any question. Clicking on "Save and 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 and Next" to mark a question for review (without answering it) and proceed to the next question.



# (i) Answering a Question

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

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 and Next" button.
- (d) To mark the question for review (without answering it), click on the "Mark for Review and Next" button.

### (j) Navigating through sections:

- (i) 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 the candidate is currently viewing will be highlighted.
- (ii) After clicking the "Save and Next" button on the last question for a section, the candidate will automatically be taken to the first question of the next section.
- (iii) Candidates can shuffle between sections and questions within sections anytime during the examination as per the convenience only during the time stipulated.
- (iv) The candidate can view the corresponding section summary as part of the legend that appears in every section above the question palette.
- (k) Procedure for answering questions that require inputs from the on-screen virtual keyboard (numeric or otherwise):

(a) The candidate will have to use the on-screen virtual keyboard (that would be displayed just below the question statement of these types of questions) and the attached computer mouse to enter his/her answer in the space provided for the answer.

# **On-Screen Virtual Keyboard**



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

The candidates will have the option to change previously saved answer to 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.

### (l) **ROUGH WORK:**

All calculations/writing work is to be done only in the rough sheet provided at the Centre in the Examination Room/Hall and on completion of the test candidates must hand over the rough sheets to the invigilator on duty in the Room/Hall.

Appendix-IV

# **NTA: Test Practice Centres (TPCs)**

### What is a Test Practice Centre (TPCs)?

The Ministry of Human Resource Development mandated the NTA to set up, establish and create a network of Test Practice Centres for candidates, especially in remote and rural areas to enable them to options and submit questions.

practice and be comfortable in taking a Computer Based Test (CBT). This facility is completely free of cost. Candidates can register online (on the NTA website) where they are provided a convenient TPC near to their location to practice on a given computer node. This facilitates and eases the process of being able to take a Computer Based Test (CBT). The entire experience of using a computer is close to the actual experience of taking a CBT. All efforts are made to provide practice tests and questions so that candidates can familiarize themselves with logging into the system, go through the detailed instructions regarding the test, use the mouse or numeric keyboard on-screen (virtual) for attempting each question, scroll down to the next question, navigate between questions, review and edit their The objective of TPCs is primarily to organize test practice for the upcoming NTA examinations.

Appendix - V

# Procedure to be adopted for compilation of NTA scores for multi-session Papers (Normalization procedure based on PERCENTILE SCORE)

NTA may conduct examinations on multiple dates, generally in two sessions per day. The candidates will be given different sets of questions per session and it is quite possible that in spite of all efforts of maintaining equivalence among various question papers, the difficulty level of these question papers administered in different sessions may not be exactly the same. Some of the candidates may end up attempting a relatively tougher set of questions when compared to other sets. The candidates who attempt the comparatively tougher examination are likely to get lower marks as compared to those who attempt the easier one. In order to overcome such a situation, "Normalization procedure based on Percentile Score" will be used for ensuring that candidates are neither benefitted nor disadvantaged due to the difficulty level of the examination. With the objective of ensuring that a candidate's true merit is identified and that a level playing field is created in the above context, the Normalization Procedure, set out below shall be adopted, for compiling the NTA scores for multi-session papers.

The process of Normalization is an established practice for comparing candidate scores across multi-session papers and is similar to those being adopted in other large educational selection tests conducted in India. For normalization across sections, NTA shall use the percentile equivalence.

**Percentile Scores:** Percentile scores are scores based on the relative performance of all those who appear for the examination. The marks obtained are transformed into a scale ranging from 100 to 0 for each session of examinees.

The Percentile Score indicates the percentage of candidates that have scored EQUAL TO OR BELOW (same or lower raw scores) that particular Percentile in that examination. Therefore the topper (highest score) of each session will get the same Percentile of 100 which is desirable. The marks obtained in between the highest and lowest scores are also converted to appropriate Percentiles.

The Percentile score will be the Normalized Score for the examination (instead of the raw marks of the candidate) and shall be used for the preparation of the merit lists.

The Percentile Scores will be calculated up to 7 decimal places to avoid the bunching effect and reduce ties.

The Percentile score of a Candidate is calculated as follows:

# 100 X Number of candidates appeared in the 'Session' with raw score EQUAL TO OR LESS than the candidate

The total number of the candidates who appeared in the 'Session'

**Note:** The Percentile of the Total shall **NOT be** an aggregate or average of the Percentile of the individual subject. The percentile score is not the same as the percentage of marks obtained.

Example: Suppose a test was held in 4 sessions of examinees as per details given below:

(Allocation of Days and shifts were done randomly)

(a) The distribution of candidates were as follows:

Session-1: Day-1 Shift-1, Session-2: Day-1 Shift-2, Session-3: Day-2 Shift-1 and

Session-4: Day-2 Shift-2

Session	Day/Shift	No	of Candidat	tes	Marks	
		Abse	Appeare	Total	Highe	Lowe
		nt	d		st	st
Session-	Day-1 Shift-1	3974	28012	31986	335	-39
1						
Session-	Day-1 Shift-2	6189	32541	38730	346	-38
2						
Session-	Day-2 Shift-1	6036	41326	47362	331	-49
3						
Session-	Day-2 Shift-2	9074	40603	49677	332	-44
4						
Total		2527	142482	16775	346	-49
(Session-1	to Session-4)	3		5		

In this method of scoring the HIGHEST RAW SCORE in each paper (irrespective of the raw scores) will be the 100 Percentile indicating that 100% of candidates have scored equal to or lesser than the highest scorer/ topper for that session.

**Highest Raw Score and Percentile Score:** All the highest raw scores will have a normalized Percentile Score of 100 for their respective session.

Session	Total Candidate s Appeared	Highe st Raw Score	Candidates who scored EQUAL OR LESS THAN Highest Raw Score	Percentile Score	Remarks
Session-1	28012	335	28012	100.0000000 [(28012/28012)*100]	i.e. all the highest raw scores would
Session -2	32541	346	32541	100.0000000 [(32541/32541)*100]	be <b>normalized</b> to 100
Session -3	41326	331	41326	100.0000000 [(41326/41326)*100]	Percentile Score for their respective
Session -4	40603	332	40603	100.0000000 [(40603/40603)*100]	session.

**Lowest Raw Score and Percentile Score:** The percentile Score of all the lowest raw scores will depend on the total number of candidates who have taken the examination for their respective sessions.

Session	Total	Lowest	Candidates	Percentile	Remarks
	Candidates	Raw	who scored	Score	
	Appeared	Score	EQUAL OR		
			LESS THAN		
			Lowest Raw		
			Score		
Session	28012	-39	1	0.0035699	i.e. Percentile Score
-1				[(1/28012)*100]	of all the lowest
Session	32541	-38	1	0.0030730	raw scores is
-2				[(1/32541)*100]	different i.e.
Session	41326	-49	1	0.0024198	Percentile Score
-3				[(1/41326)*100]	depends on the total
Session	40603	-44	1	0.0024629	number of
-4				[(1/40603)*100]	candidates who
				, //	have taken the
				0 ,	examination for
			• 5		their respective
					sessions.

The following is a further explanation of the interpretation of the raw scores and Percentile Score in Session-3 (Day-2 and Shift-1) with 41326 candidates who have taken the examination.

Candidate	Percentile Score	No of Candidates	Raw Score	Remark
A	100.0000000 [(41326/41326)*100]	1	331	This indicates that amongst those who appeared, 100% have scored either EQUAL TO OR LESS THAN candidate A (331 raw scores).  It also indicates that no candidate has scored more than candidate A (331 raw scores).
В	<b>90.1224411</b> [(37244/41326)*100]	77	121	This indicates that amongst those who appeared, 90.1224411% have scored either EQUAL TO OR LESS THAN candidate B (121 raw scores).  It also indicates that the remaining candidates have scored more than candidate B (121 raw scores).

C	50.4549194	381	41	This indicates that amongst those
	[(20851/41326)*100]			who appeared, 50.4549194% have
	[(20031/41320)*100]			scored either EQUAL TO OR
				LESS THAN candidate C (41 raw
				scores).
				It also indicates that the remaining
				those who appeared have scored
				more than candidate C (41 raw
				scores).
D	31.7040120	789	25	This indicates that amongst those
	[(13102/41326)*100]			who appeared, 31.7040120% have
	[(13102/41320) 100]			scored either EQUAL TO OR
				LESS THAN the candidate D (25
				raw scores)
				It also indicates that the remaining
				candidates have scored more than
			6	candidate D (25 raw scores).
E	1.1034216	100	-15	Indicates that amongst those who
	[(456/41326)*100]			appeared, 1.1034216% have scored
	[(430/41320)**100]			either EQUAL TO OR LESS
		, 07		THAN the candidate E (-15 raw
				score)
				It also indicates that the remaining
				candidates have scored more than
	.00			candidate E (-15 raw score)

# STEP-BY-STEP PROCEDURE FOR NORMALIZATION AND PREPARATION OF RESULT:

# **Step-1: Distribution of Examinees in two shifts:**

Candidates have to be distributed into two sessions randomly so that each session has an approximately equal number of candidates. These two sessions would be as follows:

Session-1: Day-1 Shift-1, Session-2: Day-1 Shift-2

In the event of a more number of days or less number of shifts, the candidates will be divided accordingly.

This will ensure that there is no bias in the distribution of candidates who shall take the examination. Further, with a large population of examinees spread over the entire country the possibility of such bias becomes remote.

# **Step-2: Preparation of Results for each Session:**

The examination results for each session would be prepared in the form of

- ➤ Raw Scores
- > Percentiles Scores of Total raw scores.

The Percentiles would be calculated for each candidate in the Session as follows:

Let TP1 be the Percentile Score of Total Raw Score of that candidate.

Total Percentile (TP1):

No. of candidates appeared from the session with raw score EQUAL TO OR LESS than T1 score

Total No. of candidates appeared in the session

# Step-3: Compilation of NTA score and Preparation of Result:

The Percentile scores for the Total Raw Score for all the sessions (Session-1: Day-1 Shift-1, Session-2: Day-1 Shift-2) as calculated in Step-2 above would be merged and shall be called the NTA scores which will then be used for the compilation of results and further processing for deciding the allocation.

In the events of the percentiles for the multi-shifts being dissimilar/unequal, the lowest will be the eligibility cut-off for that category for all candidates (i.e. all shifts).

For Example: In the examination held in two shifts, if the 40% marks correspond to a Percentile score of 78 in Shift 1 and 79 in Shift 2, then all those equal to or above 78 percentiles (Percentile score of 100 to 78) in both shifts will become eligible in General Category. A similar method will be adopted for the other categories to determine eligibility cut-offs. In case the examination is held in more number of shifts the same principle shall apply.

# Appendix - VI

#### **SYLLABUS for JEE (Main)-2022**

# Syllabus for Paper-1 (B.E./B.Tech.)- Mathematics, Physics, and Chemistry

# **MATHEMATICS**

# UNIT 1: SETS, RELATIONS, AND FUNCTIONS:

Sets and their representation: Union, intersection and complement of sets and their algebraic properties; Power set; Relation, Type of relations, equivalence relations, functions; one-one, into and onto functions, the composition of functions.

# UNIT 2: COMPLEX NUMBERS AND QUADRATIC EQUATIONS:

Complex numbers as ordered pairs of reals, Representation of complex numbers in the form a + ib and their representation in a plane, Argand diagram, algebra of complex number, modulus and argument (or amplitude) of a complex number, square root of a complex number, triangle inequality, Quadratic equations in real and complex number system and their solutions Relations between roots and coefficient, nature of roots, the formation of quadratic equations with given roots.

### **UNIT3: MATRICES AND DETERMINANTS:**

Matrices, algebra of matrices, type of matrices, determinants, and matrices of order two and three, properties of determinants, evaluation of determinants, area of triangles using determinants, Adjoint, and evaluation of inverse of a square matrix using determinants and elementary transformations, Test of consistency and solution of simultaneous linear equations in two or three variables using determinants and matrices.

# UNIT 4: PERMUTATIONS AND COMBINATIONS:

The fundamental principle of counting, permutation as an arrangement and

combination as section, Meaning of P (n,r) and C (n,r), simple applications.

#### **UNIT 5: MATHEMATICAL INDUCTIONS:**

Principle of Mathematical Induction and its simple applications.

# UNIT 6: BINOMIAL THEOREM AND ITS SIMPLE APPLICATIONS:

Binomial theorem for a positive integral index, general term and middle term, properties of Binomial coefficients, and simple applications.

# **UNIT 7: SEQUENCE AND SERIES:**

Arithmetic and Geometric progressions, insertion of arithmetic, geometric means between two given numbers, Relation between A.M and G.M sum up to n terms of special series; Sn, Sn2, Sn3. Arithmetico-Geometric progression.

# UNIT 8: LIMIT, CONTINUITY, AND DIFFERENTIABILITY:

Real-valued functions, algebra of polynomials, rational. functions, trigonometric, logarithmic, and exponential functions, inverse function. Graphs of simple functions. Limits, differentiability. continuity, and Differentiation of the sum, difference, product, and quotient of two functions. Differentiation of trigonometric, inverse trigonometric, logarithmic, exponential, composite and implicit functions; derivatives of order up to two, Rolle's and Mean value Lagrange's Theorems, Applications of derivatives: Rate of change quantities, monotonic-Increasing and decreasing functions, Maxima and minima of functions of one variable, tangents and normal.

#### **UNIT 9: INTEGRAL CALCULAS:**

Integral as an anti-derivative, Fundamental Integrals involving algebraic, trigonometric, exponential, and logarithms functions. Integrations by substitution, by parts, and by partial functions. Integration using trigonometric identities.

Evaluation of simple integrals of the type

$$\int \frac{(px+q)dx}{\sqrt{ax^2+bx+c}} \qquad \int \sqrt{a^2 \pm x^2} dx$$

$$\int \sqrt{x^2 - a^2} dx$$

Integral as limit of a sum. The fundamental theorem of calculus, properties of definite integrals. Evaluation of definite integrals, determining areas of the regions bounded by simple curves in standard form.

# **UNIT 10: DIFFRENTIAL EQUATIONS**

Ordinary differential equations, their order, and degree, the formation of differential equations, solution of differential equation by the method of separation of variables, solution of a homogeneous and linear differential equation of the type

$$\frac{dy}{dx} + p(x)y = q(x)$$

# **UNIT 11: CO-ORDINATE GEOMETRY**

Cartesian system of rectangular coordinates in a plane, distance formula, sections formula, locus, and its equation, translation of axes, the slope of a line, parallel and perpendicular lines, intercepts of a line on the co-ordinate axis.

### Straight line

Various forms of equations of a line, intersection of lines, angles between two

lines, conditions for concurrence of three lines, the distance of a point form a line, equations of internal and external by sectors of angles between two lines coordinate of the centroid, orthocentre, and circumcentre of a triangle, equation of the family of lines passing through the point of intersection of two lines.

#### Circle, conic sections

A standard form of equations of a circle, the general form of the equation of a circle, its radius and central, equation of a circle when the endpoints of a diameter are given, points of intersection of a line and a circle with the centre at the origin and condition for a line to be tangent to a circle, equation of the tangent, sections of conics, equations of conic sections (parabola, ellipse, and hyperbola) in standard forms, condition for Y = mx + c to be a tangent and point (s) of tangency.

# UNIT 12: THREE DIMENSIONAL GEOMETRY

Coordinates of a point in space, the distance between two points, section formula, directions ratios, and direction cosines, the angle between two intersecting lines. Skew lines, the shortest distance between them, and its equation. Equations of a line and a plane in different forms, the intersection of a line and a plane, coplanar lines.

#### **UNIT 13: VECTOR ALGEBRA**

Vectors and scalars, the addition of vectors, components of a vector in two dimensions and three-dimensional space, scalar and vector products, scalar and vector triple product.

### **UNIT 14: STATISTICS AND PROBABILITY**

Measures of discretion; calculation of mean, median, mode of grouped and ungrouped data calculation of standard deviation, variance and mean deviation for grouped and ungrouped data.

Probability: Probability of an event, addition and multiplication theorems of probability, Baye's theorem, probability distribution of a random variate, Bernoulli trials, and binomial distribution.

#### **UNIT 15: TRIGONOMETRY**

Trigonometrical identities and equations, trigonometrical functions, inverse trigonometrical functions, and their properties, heights, and distance.

#### **UNIT 16: MATHEMATICAL REASONING**

Statement logical operations and, or, implies, implied by, if and only if, understanding of tautology, contradiction, converse, and contrapositive.

### **PHYSICS**

#### **UNIT 1: PHYSICS AND MEASUREMENT**

Physics, technology, and society, S I Units, fundamental and derived units, least count, accuracy and precision of measuring instruments, Errors in measurement, Dimensions of Physics quantities, dimensional analysis, and its applications.

#### **UNIT 2: KINEMATICS**

The frame of reference, motion in a straight line, Position- time graph, speed and velocity; Uniform and non-uniform motion, average speed and instantaneous velocity, uniformly accelerated motion, velocity-time, position-time graph, relations for uniformly accelerated motion, Scalars and Vectors, Vector. Addition and subtraction, zero vector, scalar and vector products, Unit Vector, Resolution of a Vector. Relative Velocity, Motion in a plane, Projectile Motion, Uniform Circular Motion.

#### **UNIT 3: LAWS OF MOTION**

Force and inertia, Newton's First law of motion; Momentum, Newton's Second Law of motion, Impulses; Newton's Third Law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces.

Static and Kinetic friction, laws of friction, rolling friction.

Dynamics of uniform circular motion: centripetal force and its applications.

# **UNIT 4: WORK, ENERGY, AND POWER**

Work done by a content force and a variable force; kinetic and potential energies, work-energy theorem, power.

The potential energy of spring conservation of mechanical energy, conservative and neoconservative forces; Elastic and inelastic collisions in one and two dimensions.

### **UNIT5: ROTATIONAL MOTION**

Centre of the mass of a two-particle system, Centre of the mass of a rigid body; Basic concepts of rotational motion; a moment of a force; torque, angular momentum, conservation of angular momentum and its applications; the moment of inertia, the radius of gyration. Values of moments of inertia for

simple geometrical objects, parallel and perpendicular axes theorems, and their applications. Rigid body rotation equations of rotational motion.

#### **UNIT 6: GRAVITATION**

The universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Kepler's law of planetary motion. Gravitational potential energy; gravitational potential. Escape velocity, Orbital velocity of a satellite. Geo stationary satellites.

#### UNIT 7: PROPERTIES OF SOLIDS AND LIQUIDS

Elastic behaviour, Stress-strain relationship, Hooke's Law. Young's modulus, bulk modulus, modulus of rigidity. Pressure due to a fluid column; Pascal's law and its applications. Viscosity. Stokes' law. terminal velocity, streamline, and turbulent flow. Reynolds number. Bernoulli's principle and its applications. Surface energy and surface tension, angle of contact, application of surface tension - drops, bubbles, and capillary rise. Heat, temperature, thermal expansion; specific heat capacity, calorimetry; change of state, latent heat. Heat transfer-conduction, convection, and radiation. Newton's law of cooling.

#### **UNIT 8: THERMODYNAMICS**

Thermal equilibrium, zeroth law of thermodynamics, the concept of temperature. Heat, work, and internal energy. The first law of thermodynamics. The second law of thermodynamics: reversible and irreversible processes. Carnot engine and its efficiency.

#### UNIT 9: KINETIC THEORY OF GASES

Equation of state of a perfect gas, work done on compressing a gas, Kinetic theory of gases - assumptions, the concept of pressure. Kinetic energy and temperature: RMS speed of gas molecules: Degrees of freedom. Law of equipartition of energy, applications to specific heat capacities of gases; Mean free path. Avogadro's number.

#### UNIT 10: OSCILLATIONS AND WAVES

Periodic motion - period, frequency, displacement as a function of time. Periodic functions. Simple harmonic motion (S.H.M.) and its equation; phase: oscillations of a spring -restoring force and force constant: energy in S.H.M. - Kinetic and potential energies; Simple pendulum - derivation of expression for its time period: Free, forced and damped oscillations, resonance.

Wave motion. Longitudinal and transverse waves, speed of a wave. Displacement relation for a progressive wave. Principle of superposition of waves, a reflection of waves. Standing waves in strings and organ pipes, fundamental mode and harmonics. Beats. Doppler Effect in sound

### **UNIT 11: ELECTROSTATICS**

Electric charges: Conservation of charge. Coulomb's law forces between two point charges, forces between multiple charges: superposition principle and continuous charge distribution.

Electric field: Electric field due to a point charge, Electric field lines. Electric dipole, Electric field due to a dipole. Torque on a dipole in a uniform electric field. Electric flux. Gauss's law and its applications to find field due to infinitely long uniformly charged straight wire, uniformly charged infinite plane sheet, and uniformly charged thin spherical shell. Electric potential and its calculation for a point charge, electric dipole and system of charges; Equipotential surfaces, Electrical potential energy of a system of two point charges in an electrostatic field.

Conductors and insulators. Dielectrics and electric polarization, capacitor, the combination of capacitors in series and parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates. Energy stored in a capacitor.

#### **UNIT 12: CURRENT ELECTRICITY**

Electric current. Drift velocity. Ohm's law. Electrical resistance. Resistances of different materials. V-l characteristics of Ohmic and non-ohmic conductors. Electrical energy and power. Electrical resistivity. Colour code for resistors; Series and parallel combinations of resistors; Temperature dependence of resistance.

Electric Cell and its Internal resistance, potential difference and emf of a cell, a combination of cells in series and parallel. Kirchhoff's laws and their applications. Wheatstone bridge. Metre Bridge. Potentiometer - principle and its applications.

# UNIT 13: MAGNETIC EFFECTS OF CURRENT AND MAGNETISM

Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long current carrying straight wire and solenoid. Force on a moving charge in uniform magnetic and electric fields. Cyclotron.

Force on a current-carrying conductor in a uniform magnetic field. The force between two parallel currents carrying conductors-definition of ampere. Torque experienced by a current loop in a uniform magnetic field: Moving coil galvanometer, its current sensitivity, and conversion to ammeter and voltmeter.

Current loop as a magnetic dipole and its magnetic dipole moment. Bar magnet as an equivalent solenoid, magnetic field lines; Earth's magnetic field and magnetic elements. Para-, dia- and ferromagnetic substances. Magnetic susceptibility and permeability. Hysteresis. Electromagnets and permanent magnets.

# UNIT 14: ELECTROMAGNETIC INDUCTION AND ALTERNATING CURRENTS

Electromagnetic induction: Faraday's law. Induced emf and current: Lenz's Law, Eddy currents. Self and mutual inductance. Alternating currents, peak

and RMS value of alternating current/ voltage: reactance and impedance: LCR series circuit, resonance: Quality factor, power in AC circuits, wattless current. AC generator and transformer.

#### **UNIT 15: ELECTROMAGNETIC WAVES**

Electromagnetic waves and their characteristics, Transverse nature of electromagnetic waves, Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet. X-rays. Gamma rays), Applications of e.m. waves.

#### **UNIT 16: OPTICS**

Reflection and refraction of light at plane and spherical surfaces, mirror formula. Total internal reflection and its applications. Deviation and Dispersion of light by a; prism; Lens Formula. Magnification. Power of a Lens. Combination of thin lenses in contact. Microscope and Astronomical Telescope (reflecting and refracting ) and their magnifying powers.

Wave optics: wavefront and Huygens' principle. Laws of reflection and refraction using Huygens principle. Interference, Young's double-slit experiment and expression for fringe width, coherent sources, and sustained interference of light. Diffraction due to a single slit, width of central maximum. Resolving power of microscopes and astronomical telescopes. Polarization, plane-polarized light: Brewster's law, uses of plane-polarized light and Polaroid.

# UNIT 17: DUAL NATURE OF MATTER AND RADIATION

Dual nature of radiation. Photoelectric effect. Hertz and Lenard's observations; Einstein's photoelectric equation: particle nature of light. Matter waves-wave nature of particle, de Broglie relation. Davisson-Germer experiment.

#### **UNIT 18: ATOMS AND NUCLEI**

Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, energy levels, hydrogen spectrum. Composition and size of nucleus, atomic masses, isotopes, isobars: isotones. Radioactivity-alpha. beta and gamma particles/rays and their properties; radioactive decay law. Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number, nuclear fission, and fusion.

#### **UNIT 19: ELECTRONIC DEVICES**

Semiconductors; semiconductor diode: 1-V characteristics in forward and reverse bias; diode as a rectifier; I-V characteristics of LED. the photodiode, solar cell, and Zener diode; Zener diode as a voltage regulator. Junction transistor, transistor action, characteristics of a transistor: transistor as an

amplifier (common emitter configuration) and oscillator. Logic gates (OR. AND. NOT. NAND and NOR). Transistor as a switch.

#### **UNIT 20: COMMUNICATION SYSTEMS**

Propagation of electromagnetic waves in the atmosphere; Sky and space wave propagation. Need for modulation. Amplitude and Frequency Modulation, Bandwidth of signals. the bandwidth of Transmission medium, Basic Elements of a Communication System (Block Diagram only).

#### **UNIT 21: EXPERIMENTAL SKILLS**

Familiarity with the basic approach and observations of the experiments and activities:

- 1. Vernier calipers-its use to measure the internal and external diameter and depth of a vessel.
- 2. Screw gauge-its use to determine thickness/diameter of thin sheet/wire.
- 3. Simple Pendulum-dissipation of energy by plotting a graph between the square of amplitude and time.
- 4. Metre Scale the mass of a given object by the principle of moments.
- 5. Young's modulus of elasticity of the material of a metallic wire.
- 6. Surf ace tension of water by capillary rise and effect of detergents,
- 7. Co-efficient of Viscosity of a given viscous liquid by measuring terminal velocity of a given spherical **body**,
- 8. Plotting a cooling curve for the relationship between the temperature of a hot body and time.
- 9. Speed of sound in air at room temperature using a resonance tube,
- 10. Specific heat capacity of a given (i) solid and (ii) liquid by method of mixtures.
- 11. The resistivity of the material of a given wire using a metre bridge.
- 12. The resistance of a given wire using Ohm's law.
- 13. Potentiometer
  - i. Comparison of emf of two primary cells.
  - Determination of internal resistance of a cell.
- 14. Resistance and figure of merit of a galvanometer by half deflection method.
- 15. The focal length of;
  - (i) Convex mirror
  - (ii) Concave mirror, and
  - (ii) Convex lens,

using the parallax

method.

- 16. The plot of the angle of deviation vs angle of incidence for a triangular prism.
- 17. Refractive index of a glass slab using a

travelling microscope.

- 18. Characteristic curves of a p-n junction diode in forward and reverse bias.
- 19. Characteristic curves of a Zener diode and finding reverse break down voltage.
- Characteristic curves of a transistor and finding current gain and voltage gain.
- Identification of Diode. LED, Transistor. IC. Resistor. A capacitor from a mixed collection of such items.
- 22. Using a multimeter to:
  - (i) Identify the base of a transistor
  - (ii) Distinguish between NPN and PNP type transistor
  - (iii) See the unidirectional current in case of a diode and an LED.
  - (iv) Check the correctness or otherwise of a given electronic component (diode, transistor, or IC).

#### **CHEMISTRY**

#### PHYSICAL CHEMISTRY

#### UNIT I: SOME BASIC CONCEPTS IN CHEMISTRY

Matter and its nature, Dalton's atomic theory: Concept of atom, molecule, element, and compound: Physical quantities and their measurements in Chemistry, precision, and accuracy, significant figures. S.I.Units, dimensional analysis: Laws of chemical combination; Atomic and molecular masses, mole concept, molar mass, percentage composition, empirical and molecular formulae: Chemical equations and stoichiometry.

#### **UNIT 2: STATES OF MATTER**

Classification of matter into solid, liquid, and gaseous states.

#### **Gaseous State:**

Measurable properties of gases: Gas laws - Boyle's law, Charle's law. Graham's law of diffusion. Avogadro's law, Dalton's law of partial pressure; Concept of Absolute scale of temperature; Ideal gas equation; Kinetic theory of gases (only postulates); Concept of average, root mean square and most probable velocities; Real gases, deviation from Ideal behaviour, compressibility factor, and van der Waals equation.

#### Liquid State:

Properties of liquids - vapour pressure, viscosity and surface tension, and effect of temperature on them (qualitative treatment only).

Solid State:

Classification of solids: molecular, ionic, covalent and metallic solids, amorphous and crystalline solids (elementary idea); Bragg's Law and its applications: Unit cell and lattices, packing in solids (fcc, bcc and hcp lattices), voids, calculations involving unit cell parameters, an imperfection in solids; Electrical and magnetic properties.

#### **UNIT 3: ATOMIC STRUCTURE**

Thomson and Rutherford atomic models and their limitations; Nature of electromagnetic radiation, photoelectric effect; Spectrum of the hydrogen atom. Bohr model of a hydrogen atom - its postulates, derivation of the relations for the energy of the electron and radii of the different orbits, limitations of Bohr's model; Dual nature of matter, de Broglie's relationship. Heisenberg uncertainty principle. Elementary ideas of quantum mechanics, quantum mechanics, the quantum mechanical model of the atom, its important features. Concept of atomic orbitals as one-electron wave functions: Variation of  $\Psi$  and  $\Psi^2$  with r for 1s and 2s orbitals; various

quantum numbers (principal, angular momentum, and magnetic quantum numbers) and their significance; shapes of s, p, and d - orbitals, electron spin and spin quantum number: Rules for filling electrons in orbitals — Aufbau principle. Pauli's exclusion principle and Hund's rule, electronic configuration of elements, extra stability of half-filled and completely filled orbitals.

# UNIT 4: CHEMICAL BONDING AND MOLECULAR STRUCTURE

Kossel - Lewis approach to chemical bond formation, the concept of ionic and covalent bonds.

Ionic Bonding: Formation of ionic bonds, factors affecting the formation of ionic bonds; calculation of lattice enthalpy.

Covalent Bonding: Concept of electronegativity. Fajan's rule, dipole moment: Valence Shell Electron Pair Repulsion (VSEPR) theory and shapes of simple molecules.

Quantum mechanical approach to covalent bonding: Valence bond theory - its important features, the concept of hybridization involving s, p, and d orbitals; Resonance.

**Molecular Orbital Theory** - Its important features. LCAOs, types of molecular orbitals (bonding, antibonding), sigma and pi-bonds, molecular orbital electronic configurations of homonuclear diatomic molecules, the concept of bond order, bond length, and bond energy.

Elementary idea of metallic bonding. Hydrogen bonding and its applications.

#### **UNIT 5: CHEMICAL THERMODYNAMICS**

Fundamentals of thermodynamics: System and surroundings, extensive and intensive properties, state functions, types of processes.

The first law of thermodynamics - Concept of work, heat internal energy and enthalpy, heat capacity, molar heat capacity; Hess's law of constant heat summation; Enthalpies of bond dissociation, combustion, formation, atomization, sublimation, phase transition, hydration, ionization, and solution.

The second law of thermodynamics - Spontaneity of processes;  $\Delta S$  of the universe and  $\Delta G$  of the system as criteria for spontaneity.  $\Delta G^{\circ}$  (Standard Gibbs energy change) and equilibrium constant.

#### **UNIT 6: SOLUTIONS**

Different methods for expressing the concentration of solution - molality, molarity, mole fraction, percentage (by volume and mass both), the vapour pressure of solutions and Raoult's Law - Ideal and non-ideal solutions, vapour pressure - composition, plots for ideal and non-ideal solutions; Colligative properties of dilute solutions - a relative lowering of vapour pressure, depression of freezing point, the elevation of boiling point and osmotic pressure; Determination of molecular mass using colligative properties; Abnormal value of molar mass, van't Hoff factor and its significance.

#### **UNIT 7: EQUILIBRIUM**

Meaning of equilibrium, the concept of dynamic equilibrium.

**Equilibria involving physical processes:** Solidliquid, liquid - gas and solid-gas equilibria, Henry's law. General characteristics of equilibrium involving physical processes.

#### Equilibrium involving chemical processes: Law

of chemical equilibrium, equilibrium constants ( $K_p$  and  $K_c$ ) and their significance, the significance of  $\Delta G$  and  $\Delta G^\circ$  in chemical equilibrium, factors affecting equilibrium concentration, pressure, temperature, the effect of catalyst; Le Chatelier's principle.

**Ionic equilibrium:** Weak and strong electrolytes, ionization of electrolytes, various concepts of acids and bases (Arrhenius. Bronsted - Lowry and Lewis) and their ionization, acid-base equilibria (including multistage ionization) and ionization constants, ionization of water. pH scale, common ion effect, hydrolysis of salts and pH of their solutions, the solubility of sparingly soluble salts and solubility products, buffer solutions.

# UNIT 8: REDOX REACTIONS AND ELECTROCHEMISTRY

Electronic concepts of oxidation and reduction, redox reactions, oxidation number, rules for

assigning oxidation number, balancing of redox reactions.

Electrolytic and metallic conduction, conductance in electrolytic solutions, molar conductivities and their variation with concentration: Kohlrausch's law and its applications.

Electrochemical cells - Electrolytic and Galvanic cells, different types of electrodes, electrode potentials including standard electrode potential, half - cell and cell reactions, emf of a Galvanic cell and its measurement: Nernst equation and its applications; Relationship between cell potential and Gibbs' energy change: Dry cell and lead accumulator: Fuel cells.

#### **UNIT 9: CHEMICAL KINETICS**

Rate of a chemical reaction, factors affecting the rate of reactions: concentration, temperature, pressure, and catalyst; elementary and complex reactions, order and molecularity of reactions, rate law, rate constant and its units, differential and integral forms of zero and first-order reactions, their characteristics and half-lives, the effect of temperature on the rate of reactions, Arrhenius theory, activation energy and its calculation, collision theory of bimolecular gaseous reactions (no derivation).

#### **UNIT 10: SURFACE CHEMISTRY**

**Adsorption-** Physisorption and chemisorption and their characteristics, factors affecting adsorption of gases on solids - Freundlich and Langmuir adsorption isotherms, adsorption from solutions.

Catalysis - Homogeneous and heterogeneous, activity and selectivity of solid catalysts, enzyme catalysis, and its mechanism.

Colloidal state- distinction among true solutions, colloids, and suspensions, classification of colloids - lyophilic. lyophobic; multi-molecular. macromolecular and associated colloids (micelles), preparation and properties of colloids - Tyndall effect. Brownian movement, electrophoresis, dialysis, coagulation, and flocculation: Emulsions and their characteristics.

### INORGANIC CHEMISTRY

# UNIT 11: CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES

Modem periodic law and present form of the periodic table, s, p. d and f block elements, periodic trends in properties of elements atomic and ionic radii, ionization enthalpy, electron gain enthalpy, valence, oxidation states, and chemical reactivity.

# UNIT 12: GENERAL PRINCIPLES AND PROCESSES OF ISOLATION OF METALS

Modes of occurrence of elements in nature, minerals, ores; Steps involved in the extraction of metals - concentration, reduction (chemical and electrolytic methods), and refining with special reference to the extraction of Al. Cu, Zn, and Fe; Thermodynamic and electrochemical principles involved in the extraction of metals.

#### UNIT 13: HYDROGEN

Position of hydrogen in periodic table, isotopes, preparation, properties and uses of hydrogen; Physical and chemical properties of water and heavy water; Structure, preparation, reactions, and uses of hydrogen peroxide; Classification of hydrides - ionic, covalent, and interstitial; Hydrogen as a fuel.

# UNIT 14: S -BLOCK ELEMENTS (ALKALI AND ALKALINE EARTH METALS)

Group -1 and 2 Elements

General introduction, electronic configuration, and general trends in physical and chemical properties of elements, anomalous properties of the first element of each group, diagonal relationships.

Preparation and properties of some important compounds - sodium carbonate and sodium hydroxide and sodium hydrogen carbonate; Industrial uses of lime, limestone. Plaster of Paris and cement: Biological significance of Na, K. Mg, and Ca.

#### **UNIT 15: P- BLOCK ELEMENTS**

#### **Group -13 to Group 18 Elements**

**General Introduction:** Electronic configuration and general trends in physical and chemical properties of elements across the periods and down the groups; unique behaviour of the first element in each group.

# Groupwise study of the p - block elements Group -13

Preparation, properties, and uses of boron and aluminum; Structure, properties, and uses of borax, boric acid, diborane, boron trifluoride, aluminum chloride, and alums.

#### Group -14

The tendency for catenation; Structure, properties, and uses of Allotropes and oxides of carbon, silicon tetrachloride, silicates, zeolites, and silicones.

#### Group -15

Properties and uses of nitrogen and phosphorus; Allotrophic forms of phosphorus; Preparation, properties, structure, and uses of ammonia, nitric acid, phosphine, and phosphorus halides, (PCl<sub>3</sub>. PCl<sub>5</sub>); Structures of oxides and oxoacids of nitrogen and phosphorus.

#### Group -16

Preparation, properties, structures, and uses of ozone: Allotropic forms of sulphur; Preparation, properties, structures, and uses of sulphuric acid (including its industrial preparation); Structures of oxoacids of sulphur.

#### Group-17

Preparation, properties, and uses of hydrochloric acid; Trends in the acidic nature of hydrogen halides; Structures of Interhalogen compounds and oxides and oxoacids of halogens.

#### Group-18

Occurrence and uses of noble gases; Structures of fluorides and oxides of xenon.

#### UNIT 16: d - and f- BLOCK ELEMENTS

**Transition Elements** 

General introduction, electronic configuration, occurrence and characteristics, general trends in properties of the first-row transition elements - physical properties, ionization enthalpy, oxidation states, atomic radii, colour, catalytic behaviour, magnetic properties, complex formation, interstitial compounds, alloy formation; Preparation, properties, and uses of K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>, and KMnO<sub>4</sub>.

#### **Inner Transition Elements**

**Lanthanoids** - Electronic configuration, oxidation states, and lanthanoid contraction.

**Actinoids** - Electronic configuration and oxidation states.

#### **UNIT 17: CO-ORDINATION COMPOUNDS**

Introduction to coordination compounds. Werner's theory; ligands, coordination number, denticity. chelation; IUPAC nomenclature of mononuclear coordination compounds, isomerism; Bonding-Valence bond approach and basic ideas of Crystal field theory, colour and magnetic properties; Importance of co-ordination compounds (in qualitative analysis, extraction of metals and in biological systems).

#### **UNIT 18: ENVIRONMENTAL CHEMISTRY**

**Environmental pollution** - Atmospheric, water, and soil.

**Atmospheric pollution** - Tropospheric and Stratospheric

**Tropospheric pollutants - Gaseous pollutants:** Oxides of carbon, nitrogen, and sulphur, hydrocarbons; their sources, harmful effects, and prevention; Greenhouse effect and Global warming: Acid rain;

**Particulate pollutants:** Smoke, dust, smog, fumes, mist; their sources, harmful effects, and prevention.

**Stratospheric pollution-** Formation and breakdown of ozone, depletion of the ozone layer - its mechanism and effects.

**Water Pollution** - Major pollutants such as. pathogens, organic wastes, and chemical pollutants; their harmful effects and prevention.

**Soil pollution** - Major pollutants such as; Pesticides (insecticides. herbicides and fungicides), their harmful effects, and prevention. Strategies to control environmental pollution.

#### ORGANIC CHEMISTRY

# UNIT 19: PURIFICATION AND CHARACTERISATION OF ORGANIC COMPOUNDS

**Purification** - Crystallization, sublimation, distillation, differential extraction, and chromatography - principles and their applications.

**Qualitative analysis** - Detection of nitrogen, sulphur, phosphorus, and halogens.

**Quantitative analysis** (basic principles only) - Estimation of carbon, hydrogen, nitrogen, halogens, sulphur, phosphorus.

Calculations of empirical formulae and molecular formulae: Numerical problems in organic quantitative analysis,

# UNIT 20:SOME BASIC PRINCIPLES OF ORGANIC CHEMISTRY

Tetravalency of carbon: Shapes of simple molecules - hybridization (s and p): Classification of organic compounds based on functional groups: and those containing halogens, oxygen, nitrogen, and sulphur; Homologous series: Isomerism - structural and stereoisomerism.

#### Nomenclature (Trivial and IUPAC)

Covalent bond fission - Homolytic and heterolytic: free radicals, carbocations, and carbanions; stability of carbocations and free radicals, electrophiles, and nucleophiles.

#### Electronic displacement in a covalent bond

- Inductive effect, electromeric effect, resonance, and hyperconjugation.

**Common types of organic reactions-** Substitution, addition, elimination, and rearrangement.

#### **UNITS 21: HYDROCARBONS**

Classification, isomerism, IUPAC nomenclature, general methods of preparation, properties, and reactions.

**Alkanes** - Conformations: Sawhorse and Newman projections (of ethane): Mechanism of halogenation of alkanes.

**Alkenes** - Geometrical isomerism: Mechanism of electrophilic addition: addition of hydrogen, halogens, water, hydrogen halides (Markownikoffs and peroxide effect): Ozonolysis and polymerization.

**Alkynes** - Acidic character: Addition of hydrogen, halogens, water, and hydrogen halides: Polymerization.

Aromatic hydrocarbons - Nomenclature, benzene - structure and aromaticity: Mechanism of electrophilic substitution: halogenation, nitration.

Friedel - Craft's alkylation and acylation, directive influence of the functional group in monosubstituted benzene.

# UNIT 22: ORGANIC COMPOUNDS CONTAINING HALOGENS

General methods of preparation, properties, and reactions; Nature of C-X bond; Mechanisms of substitution reactions.

Uses; Environmental effects of chloroform, iodoform freons, and DDT.

# UNIT 23: ORGANIC COMPOUNDS CONTAINING OXYGEN

General methods of preparation, properties, reactions, and uses.

#### ALCOHOLS, PHENOLS, AND ETHERS

**Alcohols:** Identification of primary, secondary, and tertiary alcohols: mechanism of dehydration.

**Phenols:** Acidic nature, electrophilic substitution reactions: halogenation. nitration and sulphonation. Reimer - Tiemann reaction.

Ethers: Structure.

Aldehyde and Ketones: Nature of carbonyl group; Nucleophilic addition to >C=O group, relative reactivities of aldehydes and ketones; Important reactions such as - Nucleophilic addition reactions (addition of HCN. NH3, and its derivatives), Grignard reagent; oxidation: reduction (Wolf Kishner and Clemmensen); the acidity of  $\alpha$ -hydrogen. aldol condensation, Cannizzaro reaction. Haloform reaction, Chemical tests to distinguish between aldehydes and Ketones.

### Carboxylic Acids

### Acidic strength and factors affecting it,

# UNIT 24: ORGANIC COMPOUNDS CONTAINING NITROGEN

General methods of preparation. Properties, reactions, and uses.

Amines: Nomenclature, classification structure, basic character, and identification of primary, secondary, and tertiary amines and their basic character.

Diazonium Salts: Importance in synthetic organic chemistry.

#### **UNIT 25: POLYMERS**

General introduction and classification of polymers, **general** methods of polymerization, - Addition and condensation, copolymerization.

Natural and synthetic, rubber and vulcanization, some important polymers with emphasis on their monomers and uses – polythene, nylon, polyester, and bakelite.

#### **UNIT 26: BIOMOLECULES**

General introduction and importance of biomolecules.

CARBOHYDRATES - Classification; aldoses and ketoses: monosaccharides (glucose and fructose) and constituent monosaccharides of oligosaccharides (sucrose, lactose, and maltose).

PROTEINS - Elementary Idea of  $\alpha$ -amino acids, peptide bond, polypeptides. Proteins: primary, secondary, tertiary, and quaternary structure (qualitative idea only), denaturation of proteins, enzymes.

VITAMINS – Classification and functions.

NUCLEIC ACIDS – Chemical constitution of DNA and RNA.

Biological functions of nucleic acids.

#### **UNIT 27: CHEMISTRY IN EVERYDAY LIFE**

Chemicals in Medicines - Analgesics, tranquilizers, antiseptics, disinfectants, antimicrobials, anti-fertility drugs, antibiotics, antacids. Anti-histamines -their meaning and common examples.

Chemicals in food - Preservatives, artificial sweetening agents - common examples.

Cleansing Agents - Soaps and detergents, cleansing action

# UNIT 28: PRINCIPLES RELATED TO PRACTICAL CHEMISTRY

Detection of extra elements (Nitrogen, Sulphur, halogens) in organic compounds; Detection of the following functional groups; hydroxyl (alcoholic and phenolic), carbonyl (aldehyde and ketones) carboxyl, and amino groups in organic compounds.

 The chemistry involved in the preparation of the following:

Inorganic compounds; Mohr's salt, potash alum.

Organic compounds: Acetanilide, p-nitro acetanilide, aniline yellow, iodoform.

- The chemistry involved in the titrimetric exercises Acids, bases and the use of indicators, oxalic-acid vs KMnO<sub>4</sub> Mohr's salt vs KMnO<sub>4</sub>
- Chemical principles involved in the qualitative salt analysis:

Cations 
$$- Pb^{2+}$$
,  $Cu^{2+}$ ,  $Al^{3+}$ ,  $Fe^{3+}$ ,  $Zn^{2+}$ ,  $Ni^{2+}$ ,  $Ca^{2+}$ ,  $Ba^{2+}$ ,  $Mg^{2+}$ ,  $NH_{+}^{4}$ 

Anions-  $CO_3^{2-}$ ,  $S^{2-}$ ,  $SO_4^{2-}$ ,  $^{NO3-}$ ,  $NO^{2-}$ ,  $Cl^-$ ,  $Br^-$ ,  $I^-$  (Insoluble salts excluded).

Chemical principles involved in the following experiments:

- 1. Enthalpy of solution of CuSO<sub>4</sub>
- 2. Enthalpy of neutralization of strong acid and strong base.
- 3. Preparation of lyophilic and lyophobic sols.
- 4. Kinetic study of the reaction of iodide ions with hydrogen peroxide at room temperature.

### Syllabus for Paper 2A (B.Arch)

### **MATHEMATICS**

# UNIT 1: SETS, RELATIONS, AND FUNCTIONS:

Sets and their representation: Union, intersection and complement of sets and their algebraic properties; Power set; Relation, Type of relations, equivalence relations, functions; one-one, into and onto functions, the composition of functions.

# UNIT 2: COMPLEX NUMBERS AND QUADRATIC EQUATIONS:

Complex numbers as ordered pairs of reals, Representation of complex numbers in the form a + ib and their representation in a plane, Argand diagram, algebra of complex number, modulus and argument (or amplitude) of a complex number, triangle inequality, Quadratic equations in real and complex number system and their solutions Relations between roots and co-efficient, nature of roots, the formation of quadratic equations with given roots.

### **UNIT 3: MATRICES AND DETERMINANTS:**

Matrices, algebra of matrices, type of matrices, determinants, and matrices of order two and three, properties of determinants, evaluation of determinants, area of triangles using determinants, Adjoint, and evaluation of inverse of a square matrix using determinants and elementary transformations, Test of consistency and solution of simultaneous linear equations in two or three variables using determinants and matrices.

# UNIT4: PERMUTATIONS AND COMBINATIONS:

The fundamental principle of counting, permutation as an arrangement and combination as section, Meaning of P (n,r) and C (n,r), simple applications.

# **UNIT 5: MATHEMATICAL INDUCTIONS:**

Principle of Mathematical Induction and its simple applications.

# UNIT 6: BINOMIAL THEOREM AND ITS SIMPLE APPLICATIONS:

Binomial theorem for a positive integral index, general term and middle term, properties of Binomial coefficients, and simple applications.

# **UNIT 7: SEQUENCE AND SERIES:**

Arithmetic and Geometric progressions, insertion of arithmetic, geometric means between two given numbers, Relation between A.M and G.M sum up to n terms of special series; Sn, Sn2, Sn3. Arithmetico-Geometric progression.

# UNIT 8: LIMIT, CONTINUITY, AND DIFFERENTIABILITY:

Real-valued functions, algebra of functions, trigonometric, polynomials, rational, logarithmic, and exponential functions, inverse function. Graphs of simple functions. Limits, continuity, and differentiability. Differentiation of the sum, difference, product, and quotient of two functions. Differentiation of trigonometric, inverse trigonometric, logarithmic, exponential, composite and implicit functions; derivatives of order up to two, Rolle's and Lagrange's Mean value Theorems, Applications of derivatives: Rate of change of quantities, monotonic-Increasing and decreasing functions, Maxima and minima of functions of one variable, tangents and normal.

# **UNIT 9: INTEGRAL CALCULAS:**

Integral as an anti-derivative, Fundamental Integrals involving algebraic, trigonometric,

exponential, and logarithms functions. Integrations by substitution, by parts, and by partial functions. Integration using trigonometric identities.

Evaluation of simple integrals of the type

$$\int \frac{dx}{x^2 + a^2} , \int \frac{dx}{\sqrt{x^2 \pm a^2}} , \int \frac{dx}{a^2 - x^2} , \int \frac{dx}{\sqrt{a^2 - x^2}} ,$$

$$\int \frac{dx}{ax^2 + bx + c} , \int \frac{dx}{\sqrt{ax^2 + bx + c}} , \int \frac{(px + q)dx}{ax^2 + bx + c} ,$$

$$\int \frac{(px + q)dx}{\sqrt{ax^2 + bx + c}} \int \sqrt{a^2 \pm x^2} dx ,$$

$$\int \sqrt{x^2 - a^2} dx$$

Integral as limit of a sum. The fundamental theorem of calculus, properties of definite integrals. Evaluation of definite integrals, determining areas of the regions bounded by simple curves in standard form.

### **UNIT 10: DIFFRENTIAL EQUATIONS**

Ordinary differential equations, their order, and degree, the formation of differential equations, solution of differential equation by the method of separation of variables, solution of a homogeneous and linear differential equation of the type

$$\frac{dy}{dx} + p(x)y = q(x)$$

# UNIT11: CO-ORDINATE GEOMETRY

Cartesian system of rectangular coordinates 10 in a plane, distance formula, sections formula, locus, and its equation, translation of axis, slop of a line, parallel and perpendicular lines, intercept of a line on the co-ordinate axes.

### Straight line

Various forms of equations of a line, intersection of lines, angles between two lines, conditions for concurrence of three lines, the distance of a point form a line, equations of internal and external by sectors of angles between two lines co-ordinate of the centroid, orthocentre, and circumcentre of a triangle, equation of the family of lines

passing through the point of intersection of two lines.

### Circle, conic sections

A standard form of equations of a circle, the general form of the equation of a circle, its radius and central, equation of a circle when the endpoints of a diameter are given, points of intersection of a line and a circle with the centre at the origin and condition for a line to be tangent to a circle, equation of the tangent, sections of conics, equations of conic sections (parabola, ellipse, and hyperbola) in standard forms, condition for Y = mx + c to be a tangent and point (s) of tangency.

#### **UNIT12:THREE DIMENSIONAL GEOMETRY**

Coordinates of a point in space, the distance between two points, section formula, directions ratios, direction cosines, the angle between two intersecting lines. Skew lines, the shortest distance between them, and its equation. Equations of a line and a plane in different forms, the intersection of a line and a plane, coplanar lines.

#### **UNIT 13: VECTOR ALGEBRA**

Vectors and scalars, the addition of vectors, components of a vector in two dimensions and three-dimensional space, scalar and vector products, scalar and vector triple product.

#### **UNIT 14: STATISTICS AND PROBABILITY**

Measures of discretion; calculation of mean, median, mode of grouped and ungrouped data calculation of standard deviation, variance and mean deviation for grouped and ungrouped data.

Probability: Probability of an event, addition and multiplication theorems of probability, Baye's theorem, probability distribution of a random variate, Bernoulli trials, and binomial distribution.

#### **UNIT 15: TRIGONOMETRY**

Trigonometrical identities and equations, trigonometrical functions, inverse trigonometrical functions, and their properties, heights, and distance.

To be conducted in a Drawing sheet.

**Note:** Candidates are advised to bring pencils. Own geometry box set, crasets and colour pencils, and crayons for the Drawing Test.

#### **UNIT 16: MATHEMATICAL REASONING**

Statement logical operations and, or, implies, implied by, if and only if, understanding of tautology, contradiction, converse, and contrapositive.

# Part -II APTITUDE

**UNIT - 1** Awareness of persons. Buildings, Materials.

Objects, Texture related to Architecture and Build-envirounmentVisusalising three-dimensional objects from two-dimensional drawings. Visualizing. Different sides of three-dimensional objects. Analytical Reasoning Mental Ability (Visual. Numerical and Verbal)

UNIT 2 Three dimensionalperception: Understanding and appreciation of scale and proportions of objects, building forms and elements, colour texture harmony and contrast Design and drawing of geometrical or abstract shapes and patterns in pencil. Transformation of forms both 2D and 3D union, subtraction rotation, development of surfaces and volumes, Generation of plans, elevations, and 3D views of objects, Creating two-dimensional three-dimensional and compositions using given shapes and forms.

# Part – III <u>DRAWING</u>

Sketching of scenes and activities from memory of urbanscape (public space, market, festivals, street scenes, monuments, recreational spaces, etc.). landscape (riverfronts. Jungle. Gardens, trees. Plants, etc.) and rural life.

#### **Syllabus for Paper 2B (B.Planning)**

# **MATHEMATICS**

### **UNIT1:SETS, RELATIONS, AND FUNCTIONS:**

Sets and their representation: Union, intersection and complement of sets and their algebraic properties; Power set; Relation, Type of relations, equivalence relations, functions; one-one, into and onto functions, the composition of functions.

# UNIT2: COMPLEX NUMBERS AND QUADRATIC EQUATIONS:

Complex numbers as ordered pairs of reals, Representation of complex numbers in the form a + ib and their representation in a plane, Argand diagram, algebra of complex number, modulus and argument (or amplitude) of a complex number, triangle inequality, Quadratic equations in real and complex number system and their solutions Relations between roots and co-efficient, nature of roots, the formation of quadratic equations with given roots.

### **UNIT 3: MATRICES AND DETERMINANTS:**

Matrices, algebra of matrices, type of matrices, determinants, and matrices of order two and three, properties of determinants, evaluation of determinants, area of triangles using determinants, Adjoint, and evaluation of inverse of a square matrix using determinants and elementary transformations, Test of consistency and solution of simultaneous linear equations in two or three variables using determinants and matrices.

# UNIT4: PERMUTATIONS AND COMBINATIONS:

The fundamental principle of counting, permutation as an arrangement and combination as section, Meaning of P(n,r) and C(n,r), simple applications.

#### **UNIT 5: MATHEMATICAL INDUCTIONS:**

Principle of Mathematical Induction and its simple applications.

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### **PLANNING**

#### **UNIT-1 GENERAL AWARENESS**

General knowledge questions and knowledge about prominent cities, development issues, government programs, etc.

#### **UNIT-2 SOCIAL SCIENCES**

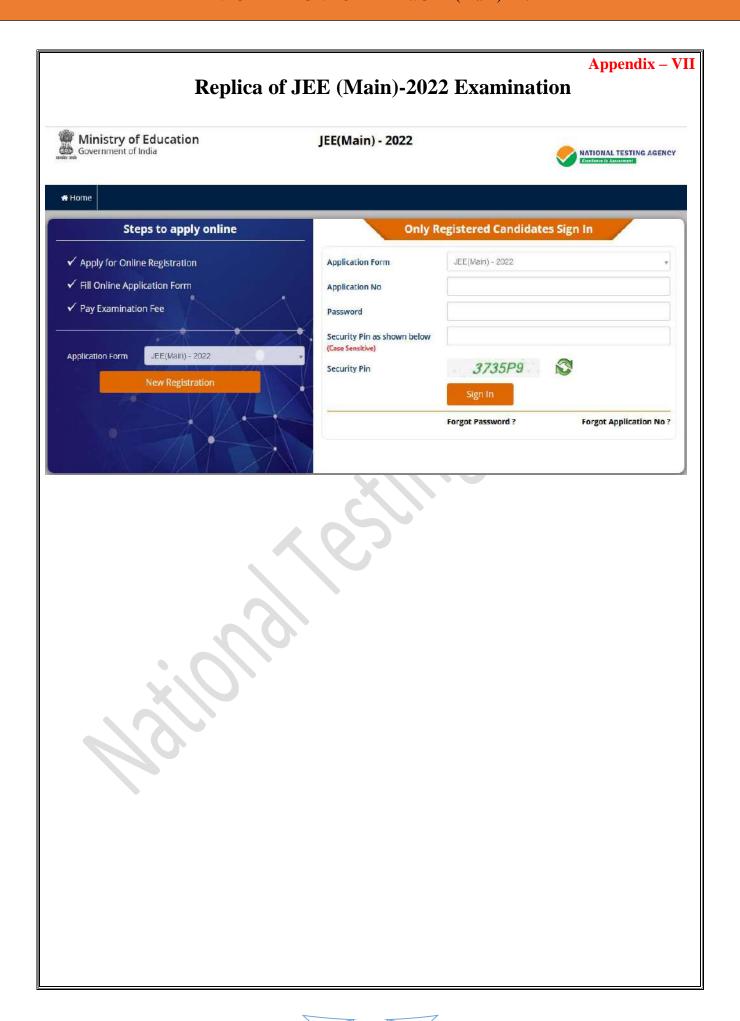
The idea of nationalism, nationalism in India, pre-modern world, 19<sup>th</sup>-century global economy, colonialism, and colonial cities, industrialization, resources, and development, types of resources, agriculture, water, mineral resources, industries, national economy; Human Settlements

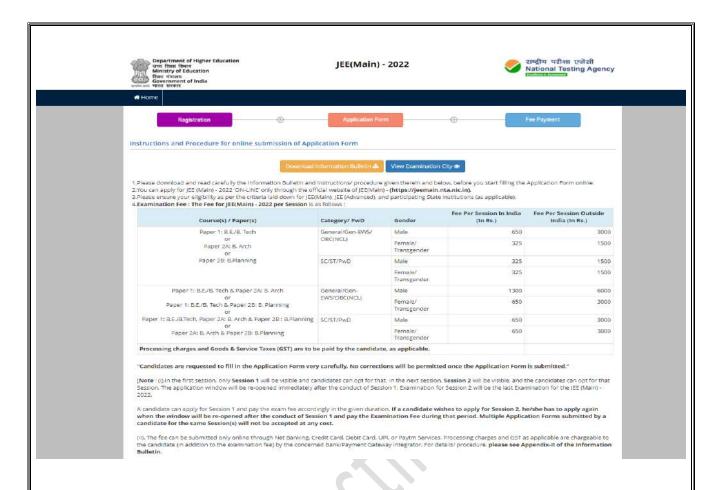
Power-sharing, federalism, political parties, democracy, the constitution of India

Economic development- economic sectors, globalization, the concept of development, poverty; Population structure, social exclusion, and inequality, urbanization, rural development, colonial cities,

### **UNIT-3 THINKING SKILLS**

Comprehension (unseen passage); map reading skills, scale, distance, direction, area, etc.; critical reasoning; understanding of charts, graphs, and tables; basic concepts of statistics and quantitative reasoning.





#### plication Procedure: Steps to be followed to apply online

Candidates must read carefully the Instructions (including how to fill up the Application Form online) given in the Information Bulletin available on the NTA Website. Candidates not complying with the Instructions shall be summarily disqualified.

#### Step 1: Registration Form:

Register for the Online Application Form and note down the system-generated Application Number. The candidate should supply the required details while filling the Online Application Form and is also required to create PASSWORD and choose Security Question and enter his/her Answer. After successful submission of the personal details, an Application number will be generated and it will be used to complete the remaining Steps of the Application Form and will also be required for all future reference/correspondence. This application number will also be used/referred for both Sessions of JEE (Main) - 2022. For subsequent logins, the candidate will be able to login directly with the respective system generated Application Number and created Password

#### Step 2: Application Form :

The Candidates can log in with the system-generated Application Number and pre-created Password for completing the Application Form including filling up of personal details, applying for the Papers. choosing the Examination Cities, providing the details of Educational Qualifications, and uploading the images and documents (if any).

Upload Scanned Images of Candidate's Photograph. Signature. Category Certificate(wherever applicable) and PwD Certificate (wherever applicable):

- I. The recent photograph should be either in colour or black & white with 80% face (without mask) visible including ears against
- a write background.

  It. Scanned photograph and signature should be in JPG format (clearly legible).

  III. The size of the scanned photograph should be between 10 kb to 200 kb (clearly legible).

  IV. The size of the scanned signature should be between 4 kb to 30 kb (clearly legible).
- v. Size of the scanned copy of Category certificate between **10 kb to 300 kb** (clearly legible) vi. Size of the scanned copy of PwD certificate between **10 kb to 300 kb** (clearly legible)

[Note: The Candidate has to upload only his/her own photograph, signature, and certificate(s) as mentioned above (and not of anybody else) in a correct/proper manner, as the facility for correction will not be given in the future. In case, it is found at any time in the future that the Candidate has used/uploaded the photograph, signature, and certificate(s) of someone else in his/her Application Form/Admit Card, or he/she has tempered his/her Admit Card/Result/Scorecard, these acts of the candidate shall be treated as Unfair Means (UFM) Practices and he/she shall be proceeded with the actions as contemplated under the provisions of the Information Bulletin relating to Unfair Means Practices.

Please check your photograph and signature before submission of the Application Form. In case the photograph or signature is blurred or not visible to identify the identity of the candidate then, the application will be rejected and no option for correction or revision will be permitted.

#### Step 3: Fee Payment:

After completing Step 1 and Step 2, the candidates have to pay the requisite examination fee. The fee can be submitted only online through Net Banking, Credit Card, Debit Card, UPI, or Paytm Services. Processing charges and GST as applicable are chargeable to the candidate (in addition to the examination fee) by the concerned Bank/Payment Gateway Integrator.

The Confirmation Page of the online Application Form will be generated only after successful payment by the Candidate. In case the Confirmation Page is not generated after payment of fee, then the candidate may have to approach the concerned Bank/Payment Gate (in the helpline number and e-mail given in the information Bulletin) for ensuring the successful payment or for obtaining the refund of duplicate / multiple payments].

#### 6.Important Instruction about PASSWORD i. During online form filling, the candidate will be required to choose PASSWORD and Security Question and its Answer. The candidate is advised to record/remember their password for all future logins. ii. For subsequent logins, the candidate will be able to login directly with their respective system-generated Application Number and the chosen Password. III. The candidate is advised not to disclose or share their password with anybody. Neither NTA nor NIC will be responsible for the violation or misuse of the password of iv. Candidates can change his/her passwords after login if desired. v. Candidates should remember to log out at the end of their session so that the particulars of the candidate cannot be tampered with or modified by unauthorized persons. The Password must be as per the following Password policy. i. Password must be 8 to 13 characters long. ii. Password must have at least one Upper case alphabet. iii. Password must have at least one Lower case alphabet. iv. Password must have at least one numeric value. v. Password must have at least one special character eg.!@#\$%^&\*-. 7. How to reset your Password: The following options are available to reset Password i. Using Security Question and its Answer you have chosen during Form filling. ii. Using a verification code sent via text message (SMS) to your Registered Mobile No. iii. Using a reset link sent via Email to your Registered Email address. 8. The Application Number printed on the computer-generated Confirmation Page must be mentioned in all such correspondences. It is therefore essential to note down the application number printed on the Confirmation Page. ☐ I have downloaded the Information Bulletin of JEE (Main) - 2022, read and understood all the Instructions therein as well as those mentioned above, and will fill up the online Application Form for the JEE (Main) - 2022 accordingly. राष्ट्रीय परीवा एजेंसी nt of Higher Education JEE(Main) - 2022 National Testing Agency nt of India Personal Details Candidate's Name Father's Name B Mother's Name Candidate Date of Birth 02 January (01) 2000 Gender Male Identity Type School ID Card Enter School ID Card 12547ss Present Address ABC Premises No/Name Sub-Locality(Optional) ABCD: Locality ABCDE Country India DELHI State CENTRAL DELHI District Pin Code Email Address \$0x Confirm Email Address Mobile Number 91 MARCH 1997 Confirm Mobile Number 91 000000000 Alternate Contact No. (Optional)

