

## Facts, Syllabus and Pattern

### What is JEE Main?

JEE Main is among the **toughest exams** in the world. Every year, over 12 lakh students appear while only 2,20,000 **qualify for JEE Advanced**.

The **Joint Entrance Examination (JEE)** is an engineering entrance assessment conducted for admission to various engineering colleges in [India](#). It is constituted by two different examinations: the [JEE Main](#) and the [JEE Advanced](#).

The Joint Seat Allocation Authority (JoSAA) conducts the joint admission process for a total of 23 [Indian Institute of Technology](#) campuses, 31 [National Institute of Technology](#) campuses, 25 [Indian Institute of Information Technology](#) campuses and 19 other [Government Funded Technical Institutes](#) (GFTIs) based on the rank obtained by a student in JEE Mains and JEE Advanced.<sup>[[citation needed](#)]</sup>

There are some institutes, such as the [Indian Institutes of Science Education and Research](#) (IISERs), the [Indian Institute of Petroleum and Energy](#) (IIPE), the [Rajiv Gandhi Institute of Petroleum Technology](#) (RGIPT), the [Indian Institute of Space Science and Technology](#) (IIST), and the [Indian Institute of Science](#) (IISc), which use the score obtained in the JEE Advanced examination as the basis for admission. These institutes do not participate in the post-examination counselling session (JOSAA). Any student who takes admission to an Indian Institute of Technology cannot appear for the JEE Advanced examination again, but the same is not the case with IISc, IISERs, RGIPT, IIPE and IIST since they have separate and exclusive counselling sessions.

- The Joint Entrance Examination (JEE) is an All-India Common Entrance Exam for getting admissions into engineering colleges across India
- JEE Main will be conducted twice a year in the month of January and April respectively by National Testing Agency (NTA).
- It is conducted in two phases: JEE Main and JEE Advanced
- If you clear the given cut-off for JEE Main, you qualify for JEE Advanced
- With a JEE Main score you can apply to institutions like NITs, IIITs and other Central or State Funded Institutes
- Whereas, IITs and ISM, Dhanbad consider results of JEE Advanced for admissions
- From 2020 the examination will be held only in the computer based mode.

### Syllabus for JEE Main

JEE Main 2020 follows the CBSE prescribed NCERT syllabus. The difficulty level of the examination will also be based on the difficulty level of NCERT.

## **Physics**

1. Physics and Measurement
2. Kinematics
3. Laws of Motion
4. Work, Energy and Power
5. Rotational Motion
6. Gravitation
7. Properties of Solid and Liquids
8. Thermodynamics
9. Kinetic Theory of Gases
10. Oscillations and Waves
11. Electrostatics
12. Current Electricity
13. Magnetic Effects of Currents and Magnetism
14. Electromagnetic Induction & Alternating Currents
15. Electromagnetic Waves
16. Optics
17. Dual Nature of Matter and Radiation
18. Atoms and Nuclei
19. Electronic Devices
20. Communication Systems and Experimental Skills

## **Chemistry**

1. Some Basic Concepts in Chemistry

2. The States of Matter
3. Atomic Structure
4. Chemical Bonding and Molecular Structure
5. Chemical Thermodynamics
6. Solutions
7. Equilibrium
8. Redox Reactions and Electrochemistry
9. Chemical Kinetics
10. Surface Chemistry
11. Classification of Elements and Periodicity in Properties
12. General Principles and Processes of Isolation of Metals
13. Hydrogen
14. s-Block Elements
15. p-Block Elements
16. d- and f-Block Elements
17. Coordination Compounds
18. Environmental Chemistry
19. Purification and Characterisation of Organic Compounds
20. Some Basic Principles of Organic Chemistry
21. Hydrocarbons
22. Organic Compounds Containing Halogens
23. Organic Compounds Containing Oxygen
24. Organic Compounds Containing Nitrogen

25. Polymers
26. Biomolecules
27. Chemistry in Everyday Life
28. Principles Related to Practical Chemistry

## **Maths**

1. Sets, Relations, and Functions
  2. Complex Numbers and Quadratic Equations
  3. Matrices and Determinants
  4. Permutations and Combinations
  5. Mathematical Induction
  6. Binomial Theorem and its Simple Applications
  7. Sequences and Series
  8. Limits Continuity and Differentiability
- Integral Calculus
9. Differential Equations
  10. Coordinate Geometry
  11. Three-dimensional Geometry
  12. Vector Algebra
  13. Statistics and Probability
  14. Trigonometry
  15. Mathematical Reasoning

## **Exam Pattern for JEE Main**

The JEE Main 2020 Examination is divided into two parts:

- Paper 1 for B.E. and B. Tech. (Computer based only)

- Paper 2 for B. Arch. & B. Planning (Pen and paper only)

Paper 1	
Particulars	Details
Subjects	Physics, Chemistry and Mathematics
Type of questions	Objective (MCQs) & Blank Type Questions
Mode of examination	Computer based mode only
Exam duration	3 hours
Number of questions	75 (25 questions from each subject)
Marking scheme	4 marks awarded for each correct answer
Negative marking	1/4 marks deducted for each Objective Type incorrect response & No negative marks for Black Type Questions
Paper 2	
Sections	Type of Question
Section 1: Mathematics	Objective (MCQs)
Section 2: Aptitude test	Objective (MCQs)

Paper 2	
Section 3: Drawing test	-
<b>Particulars</b>	<b>Details</b>
Mode of Examination	Offline
Exam Duration	3 hours

[Language Mediums](#) in JEE Main 2020

Medium of Language	Exam Centres
English and Hindi	All examination centres
Gujarati	Exam centres in Gujarat, Daman & Diu and Dadra & Nagar Haveli
Marathi	Exam centres in Maharashtra
Urdu	Exam centres in Maharashtra

Here are a few important guidelines you need to keep in mind.

## How to apply

## Eligibility Criteria for JEE Main

- **Age:**  
General category candidates must have been born on or after 1st October, 1994.  
SC, ST and PWD candidates must have been born on or after 1st October, 1989.
- **Subjects:**  
You must have studied at least 5 subjects in 10+2.  
Physics and Mathematics are compulsory subjects.

Chemistry, Biotechnology, Biology or Technical vocational are the other subjects to select from.

- **Score in 12th standard or equivalent exam:**

General category candidates require a minimum score of least 75% or should be in the top 20 percentile in their respective 12th board or equivalent examination.

For an SC or ST candidate, the minimum score is 65%.

Here is the list of [equivalent exams](#) is available here.

- **Year of passing 12th standard or equivalent exam:**

You must have passed Class 12th or any equivalent qualifying examination in the years 2017, 2019 or 2020.

- **Aadhar Card requirement:**

You need a registered Aadhaar Card Number to be eligible to apply for JEE Main.

- **Number of attempts:**

You can attempt JEE Main twice in a year - once in January and once in April. Your best score will be considered for qualifying into JEE Advanced and admissions to colleges.

You can attempt JEE Advanced only for 2 consecutive years.

## **Registration for JEE Main**

The JEE Main application form has to be filled online. You need to provide details such as your name, email ID, mobile number etc. You will need to choose a username and password for login.

### **Step 1: Filling the application form**

Checklist while filling the form - keep the following items ready:

1. Board examination details
2. Personal details like name, email id, mobile number
3. Academic qualification (Class 12 marks or appearing date)
4. Contact details of student and guardian
5. Scanned copy of your photograph, signature and left thumb print (the specification for which are mentioned here)

Once you've filled out this information and uploaded the required documents, you need to move to the next step.

### **Step 2: Choosing your exam centre.**

1. Choose a centre according to your preference.

### Step 3: Payment of fees

1. You can pay your fees online through credit and debit cards.
2. If you wish to pay it offline, you can deposit the fee in cash at Syndicate, Canara, ICICI and HDFC banks through E-Challan.

### Step 4: Confirmation page

1. This page will mention all the details you have filled out in your application form.
2. Keep a copy of this page saved at all times.

## Application Fees for JEE Main

### Fees for Exam Centres in India

Computer Based Test		
Papers	General and OBC (Boys)	SC, ST, PWD and All Girls
Either Paper 1 or 2	500/-	250/-
Both Paper 1 and 2	1300/-	650/-

### Fees for Exam Centres in a Foreign Country

Computer Based Test		
Papers	General and OBC (Boys)	SC, ST, PWD and All Girls
Either Paper 1 or 2	2500/-	1250/-
Both Paper 1 and 2	3800/-	1900/-



## Admit Card for JEE Main

Once you've completed the registration process, you will have to download your Admit Card.

- It is **mandatory** to carry the Admit Card to the examination
- Only eligible candidates who have completed the registration process can download the Admit Card
- To do this, they need to enter their application number and their date of birth

### The steps to download the JEE Main 2020 Admit Card:

1. Click on JEE Main 2020 Admit Card link (Will be updated once released by the authorities).
2. Submit the form with the information you entered during registration.
3. Your [JEE Main 2020 Admit Card](#) will be displayed on the screen.
4. Check and ensure that all the details on the Admit Card are correct and then download it.

**Note:** Take multiple printouts of your Admit Card for future reference.

## Important dates

## Exam Dates for JEE Main

Exam dates for JEE Main 2020 are announced.

Registration Deadlines		
	January 2020 Exam	April 2020 Exam
Start of online registration & submission of application form	3rd September 2019	2nd week of February 2020
Last date for submission of application form	10th October 2019	4th week of February 2020

Last date for payment of application Fees through Credit or Debit Card	10th October 2019	4th week of February 2020
Last date for payment of application fees through E-Challan	10th October 2019	4th week of February 2020
Admit card available	December 2019	March 2020
<b>Exam Dates</b>		
Online JEE Main 2020 Exam	6th to 11th January 2020	7th to 21st April 2020
<b>Result Dates</b>		
Answer Key and OMR Sheet Declaration	January 2020	April 2020
Acceptance of Challenge to Answer Keys (Rs. 1000/question)	January 2020	April 2020
Paper 1 - Result Declaration (Scores and AIR)	1st week of February 2020	1st week of May 2020
Paper 2 - Result Declaration	1st week of February 2020	1st week of May 2020

## Exam Schedule for JEE Main

The schedule for the JEE Main 2019 Exam, conducted on 8th April, 2019, was as follows:

### Exam schedule for Paper 1

Paper 1		
Schedule	Offline Exam	Online Exam
Entry in the exam centre	8:00 AM	8:00 AM
Entry in the exam hall	9:00 AM	9:00 AM
Distribution of test paper	9:20 AM	-
Last entry in the exam hall	9:30 AM	9:30 AM
Commencement of the test	9:30 AM	9:30 AM
Conclusion of the test	12:30 AM	12:30 AM

### Exam schedule for Paper 2

Paper 2		
Schedule	Offline Exam	Online Exam
Entry in the exam centre	1:00 PM	1:00 PM

Paper 2		
Schedule	Offline Exam	Online Exam
Entry in the exam hall	1:30 PM	1:30 PM
Distribution of test paper	1:50 PM	-
Last entry in the exam hall	2:00 PM	2:00 PM
Commencement of the test	2:00 PM	2:00 PM
Conclusion of the test	5:00 PM	5:00 PM

## Results and cut-off

### Answer Key for JEE Main

- The official answer key will be released within a week after the last exam
- You can compare your answers and predict your score
- You can even challenge the answer key if you believe the answer is incorrect or has more than one correct answer
- To challenge the answer key, you need to pay a fee of Rs.1000 for each question you challenge

Here is how you can challenge the answer key .

### Rank Predictor for JEE Main

The rank predictor helps you guess your rank before the official results are declared, in order to shortlist colleges that might admit you on the basis of your rank. The All India Rank in JEE Main

2020 is calculated on the basis of your JEE Main 2020 result only and not the 12th standard percentile.

**Note:** These estimated ranks may not be 100% accurate.

Find out your own rank in [JEE Main 2020](#)!

## Results for JEE Main

Your JEE Main result indicates whether you are eligible for JEE Advanced or not. Follow these simple steps to check your result for JEE Main:

1. Keep your admit card ready.
2. Click on the link to access your JEE Main 2020 result.
3. Enter your JEE Main roll number and date of birth.
4. Click on the 'Submit' tab.
5. Your JEE Main score and All India Rank (AIR) will be reflected on the screen.

Download your score card from the link provided on the same page itself.

Incase of a tie, take a look at the Tie-breaking Criteria for Paper 1.

## Cut-off for JEE Main

The JEE Main cut-off indicates the closing ranks or minimum scores that you need to score to qualify for JEE Advanced . Candidates who don't meet the cut-off will be considered ineligible. However, in that case, they can still participate in the JEE Main counselling, conducted by JoSAA.

### JEE Main 2019 Category-wise Cut-off:

Category	Cut-Off
Common Rank List	89
General - EWS	78
OBC - NCL	74

Category	Cut-Off
SC	54
ST	44
PWD	0.1

Check out the opening and closing ranks for some of the [best colleges](#) for JEE Main.

## Rank List for JEE Main

The JEE Main 2020 rank list reflects the All India Ranks (AIRs) and the respective category ranks of the candidates.

- You can download your rank card after you've checked your JEE Main 2020 results
- A separate rank list is prepared for B. Arch. and B. Planning which is declared after the results of Paper 1

Here are the steps to download the JEE Main 2020 Rank List:

1. Visit the [JEE Main official website](#).
2. Enter your JEE Main 2020 roll number and date of birth.
3. Click on the 'Submit' tab.
4. The JEE Main 2020 rank list will appear on the computer screen.
5. Check the JEE Main 2020 rank and save it for future reference.

## Counselling for JEE Main

Once you clear the JEE Main, you are eligible for counselling. Counselling is a process of picking colleges that are the perfect fit for your score and interest.

- The Joint Seat Allocation Authority (JOSAA) will conduct counselling
- Seats to colleges are allotted for JEE Main 2020 through this process
- It is conducted online in seven rounds tentatively

- Counselling for JEE Main 2020 is likely to start from the first week of July, 2020

The following steps are involved in the JEE Main 2020 [counselling procedure](#):

1. Online Registration
2. Online Choice Filling and Locking
3. JoSAA 2020 Seat Allotment
4. Seat Acceptance and Fees Payment
5. Reporting to the Allotted College

Here's a list of documents required for the JEE Main 2020 counselling:

- 3 Passport Sized Photographs (same as the ones uploaded during the time of registration)
- Provisional Seat Allotment Letter
- Photo Identity Card
- Proof of Seat Acceptance Payment
- JEE Main 2020 Admit Card
- Proof of Date of Birth
- JEE Main 2020 Scorecard
- Mark sheet of Class 12th, or any equivalent qualifying exam
- Category Certificate (if applicable)

## How to prepare

### Preparation Tips for JEE Main

- **Practice is the key:** Practice as much as you can. 70% of your JEE preparation comprises of practice. [Toppr](#) offers over 5 lakh questions in our question bank to help you learn and strengthen concepts in each chapter.
- **Take All-India Level mock tests:** Give time-bound mock tests in a completely exam-like environment to improve your efficiency at attempting questions. Toppr offers an All-India Test Series that lets you compete with other students from all over India.
- **Clear all your doubts:** Don't get stuck with doubts. Discuss and clarify them with Subject Experts at Toppr to get an instant reply.

- **Study from the best sources:** NCERT and several [recommended books](#) for JEE are the minimum resources you need. Toppr offers the best study material from all over the web to help you prepare better.
- **Revision is important:** When you go through a formula or concept, maintain revision notes in the form of bullet points. [Revision will be useful](#) when the exam is close and a good revision pattern will take less time. Normally, without these notes, you would have to go through the entire chapter to understand important points once again.

## Study Material for JEE Main

Here are some recommended books to help you prepare for JEE:

### Physics

- Physics NCERT Textbooks for Classes 11th and 12th
- Arihant Series - D.C. Pandey
- Concepts of Physics (both volumes) by H.C. Verma

### Chemistry

- NCERT Textbooks for Inorganic Chemistry
- Morrison and Boyd for Organic Chemistry
- M.S. Chauhan for Problem Practice in Organic Chemistry
- O.P. Tandon for Physical Chemistry
- P. Bahadur for Problem Practice in Physical Chemistry

### Maths

- R.D. Sharma – Objective Mathematics, Part 1 and Part 2 (NCERT difficulty)
- Arihant Series – Dr. S.K. Goyal

## Sample Papers for JEE Main

Solving [sample papers](#) and previous year papers is not only advisable, but also mandatory if you want to stay ahead of the stiff competition in JEE Main 2020. Solving sample papers will help you to prepare for the expected paper and its pattern while also assisting you in learning efficient time management. You can also assess your own performance by practicing sample papers and judge your level of preparations for JEE Main 2020.



## Previous Years' Papers for JEE Main

Practising previous years' JEE papers is important as it helps you simulate the real exam. Toppr provides you with a complete set of all question banks from previous years which you can practice to sharpen your skills.

### Frequently Asked Questions (FAQs)

**Q1:** Can a candidate change the mode of examination?

**Ans:** The JEE Main exam will only be held in the computer based mode. The HRD ministry will organise practice centres from August. These will be free of cost for all aspirants who want to familiarise themselves with the new mode of examination.

**Q2:** Can the candidates opt for both the papers of JEE Main 2020?

**Ans:** Yes, the candidates can appear for both papers in JEE 2020, or can also have the liberty to appear for just one of the two.

**Q3:** Can candidates change the date of their exam?

**Ans:** Candidates can change the date of their exam only if it clashes with something important, like a board exam.

**Q4:** Is it compulsory to have an Aadhaar Card Number to apply for JEE Main 2020?

**Ans:** Yes, it's mandatory for candidates to enter their Aadhaar Card Number in the application form in order to register successfully. No application will be accepted without the Aadhaar Card Number.

**Q5:** A candidate has applied for both Paper 1 and Paper 2. Can he or she opt for just one paper now?

**Ans:** There is no compulsion for such candidates to appear in both papers. They can choose to appear for the paper of their choice. However, there will be no refund of fees.

**Q6:** What action is to be taken if the candidate has opted for Hindi or Gujarati medium for the examination but now wants to appear in the English medium?

**Ans:** The JEE Main 2020 question paper is bilingual (both in Hindi and English as well as Gujarati and English) for candidates who have opted for Hindi or Gujarati mediums. The candidate can attempt the questions in any medium during the examination.

To clarify all your doubts, check out the detailed list of [JEE Main 2020 FAQs](#).

That's all you need to know about JEE Main 2020. Don't lose heart if you don't get through to JEE Advanced as some [NITs](#) are even better than a few IITs.

**Q7:** What colleges can I get into through JEE Main?

**Ans:** IITs, NITs, IIITs and a list of 100 or so central or state funded institutions participate in JEE Main. Though IITs and ISM don't accept the JEE Main score, they require the JEE Advanced score, this is the first step to getting into the best colleges.

Here's a list of participating Colleges in JEE Main 2020.

Sr No	Colleges
1	National Institute of Technology (NIT Trichy), Tiruchirappalli
2	Indian Institute of Information Technology (IIIT), Pune
3	Indian Institute of Information Technology (IIIT-A), Allahabad
4	National Institute of Foundry and Forge Technology (NIFFT), Ranchi
5	Netaji Subhas Institute of Technology (NSIT), Delhi
6	Indian Institute of Information Technology (IIITG), Guwahati, Assam
7	National Institute of Technology Warangal (NITW), Telangana
8	National Institute of Technology Patna (NIT Patna), Bihar
9	Thapar University, Patiala
10	PSG College of Technology, Coimbatore