

JEE ADVANCE

JEE (Joint Entrance Exam), an all India common entrance exam for engineering, is held in two stages:

- JEE Main
- JEE Advanced

JEE Advanced is the second stage of the Joint Entrance Examination. You are eligible to take JEE Advanced only if you clear the cut-off for JEE Main.

This examination will form the basis for admission to various bachelor's degree programs in IITs.

Syllabus for JEE Advanced

Physics

2. General Physics

- Units and Dimensions
 - Measurement and Errors
 - Vectors
- #### 3. Mechanics
- Kinematics
 - Laws of Motion
 - Friction
 - Centre of Mass, Momentum and Collision
 - Work, Energy and Power
 - Circular Motion
 - Rotational Dynamics
 - Mechanical Properties of Matter
 - Fluid Mechanics
 - Simple Harmonic Motion
 - Wave Motion and String Waves
 - Sound Waves

3. Thermal Physics

- Thermodynamics
- Kinetic Theory
- Heat Transfer
- Thermal Expansion

4. Electricity and Magnetism

- Electrostatics
- Current Electricity
- Capacitors
- Magnetism
- Electromagnetic Induction
- Alternating Current

5. Optics

- Geometrical Optics
- Light Waves
- Dispersion and Spectra

6. Modern Physics

- Nuclear Physics
- Photoelectric Effect and Wave-Particle Duality
- Bohr's Model and Physics of the Atom
- X-rays

Chemistry

1. Physical Chemistry

- Some Basic Concepts of Chemistry
- Mole Concept
- Redox Reactions
- Gaseous and Liquid States
- Atomic Structure and Chemical Bonding
- Energetics
- Chemical Equilibrium
- Electrochemistry
- Chemical Kinetics
- Solid State
- Solutions
- Surface Chemistry
- Nuclear Chemistry

2. Inorganic Chemistry

- S-Block Elements
- P-Block Elements
- Transition Elements (3D Series)
- Coordination Compounds
- Metallurgy
- Qualitative Analysis

3. Organic Chemistry

- General Organic Chemistry
- Hydrocarbons
- Reactions of Benzene
- Phenols
- Aldehydes, Ketones and Carboxylic Acids
- Alcohols and Ethers
- Haloalkanes and Haloarenes

- Organic Compounds Containing Nitrogen
- Carbohydrates
- Amino Acids and Peptides
- Polymers
- Practical Organic Chemistry

Maths

1. Algebra

- Complex Numbers
- Quadratic Equations
- Sequence and Series
- Logarithm
- Binomial Theorem
- Permutations and Combinations
- Determinants and Matrices
- Probability

2. Trigonometry

- Trigonometry
- Solutions of Triangle
- Inverse Trigonometric Functions

3. Analytical Chemistry

- Coordinate Geometry
- Straight Lines and Pair of Straight Lines
- Circle
- Parabola
- Ellipse
- Hyperbola

4. Differential Calculus

- Sets, Relations and Functions
- Limits and Continuity
- Differentiation
- Application of Derivatives

5. Integral Calculus

- Indefinite Integrals
- Definite Integrals
- Area of Bounded Regions
- Differential Equations

6. Vectors

- a. Vector Algebra
- b. 3D Geometry

Exam Pattern for JEE Advanced

JEE Advanced is probably the most unpredictable exam. The paper pattern is different every year with a different marking scheme, hence students should go through previous years' papers to get a fair idea.

Looking at the previous years' papers, we have identified certain trends, however they are subject to change. JEE Advanced usually consists of two papers of 3 hours each. The marks however, vary.

Here are the types of questions asked in JEE Advanced over the years:

1. Single choice MCQs
2. Multiple correct MCQs
3. Integer answer type questions
4. Matrix match type
5. Passage comprehension type

Eligibility Criteria for JEE Advanced

Age:

As a general category candidate, you must have been born on or after 1st October 1993.

As a SC, ST or PWD candidate, you must have been born on or after 1st October 1988.

Performance in JEE Main:

You should be among the top 2,20,000 candidates (all categories included) in JEE Main.

Reservation:

50.5% candidates are selected from the General category.

27% will be chosen from OBC-NCL, 15% from SC, 7.5% from ST and 3% from PwD category.

Year of passing 12th standard or equivalent exam:

You must have passed Class 12th or any equivalent qualifying examination in the years 2016, 2018 or 2018 (provided the results are declared before 15th June 2018).

Number of attempts:

You can attempt JEE Advanced a maximum of 2 consecutive years.

Earlier Admission at IITs or ISM:

You are ineligible for JEE Advanced if you have taken or accepted admission by paying the fees at any of the IITs or ISM in the past.

You are also ineligible if your admission to any of the IITs was canceled in the past.

However, if you have taken a 'Preparatory Course' one year prior to the exam in any IITs, you can apply for JEE Advanced.

Registration for JEE Advanced

The online application procedure of JEE Advanced comprises of the following three simple steps:

Step 1: Filling the application form

1. You must enter your JEE (Main) roll number, password and security pin.
2. You will have to choose a new password for JEE Advanced.
3. You will then be redirected to a page that contains your personal and academic details from the JEE Main application.
4. You have to mention the number of attempts and choose 3 exam centres (they must fall in the same IIT Zone).
5. You have to select a language of the question paper (Hindi or English).

Note: The JEE Advanced application cannot be withdrawn after registration has been completed.

Step 2: Uploading scanned certificates

Here's a list of documents for general category candidates:

- A colour photograph
- Class X certificate
- Class XII or equivalent examination certificate
- Scanned copy of the candidate's full signature
- Scanned copy of the candidate's left-hand thumb impression

Make sure to find out the full list of documents ,for JEE Advanced, along with other categories with specifications.

Step 3: Paying the registration fee

You can pay using:

- Debit Card/Internet Banking
- Cash at an SBI Bank
- International Debit or Credit Card (only for Dubai centre)

Make sure to find out about your payment options for JEE Advanced.

Application Fees for JEE Advanced

Fees for Examination Centres in India

Female candidates	Rs. 1200
SC, ST and PwD candidates	Rs. 1200
All other candidates	Rs. 2400
Late fee	Rs. 500

Fees for Examination Centres Outside India (SAARC Countries)

All candidates	\$135
Late fee	\$80

Fees for Examination Centres Outside India (Non- SAARC Countries)

All candidates	\$270
Late fee	\$80

Important dates

Exam Dates for JEE Advanced

Tentative exam dates for JEE Advanced 2018

Registration Deadlines		
JEE Main 2018 (offline exam)	2nd April 2018	9:30 AM to 12:30 PM 2:00 PM to 5:00 PM
JEE Main 2018 result declaration	27th April 2018	00:00 AM
JEE Advanced 2018 registration date	28th April 2018	11:59 PM
Registrations closes	2nd May 2018	11:59 PM
Admit card will be available for download	10th May 2018 and 21st May 2018	10:00 AM on 10th May 9:00 AM on 21st May
Exam Dates		
JEE Advanced 2018 exam - Paper 1	21st May 2018	9:00 AM to 12:00 PM
JEE Advanced 2018 Exam - Paper 2	21st May 2018	2:00 PM to 5:00 PM

Result Dates

Online display of ORS and scanned responses Request for review of scanned responses	31st May to 3rd June 2018	-
Display of Answer Keys	4th June 2018	-
Collecting candidates' feedback on Answer Keys	4th to 6th June 2018	-
Result declaration	11th June 2018	00:00 AM
Date for online registration of the Architecture Aptitude Test (AAT)	11th to 12th June 2018	-
AAT exam date	14th June 2018	-
AAT result announcement date	18th June 2018	-
Seat allotment	19th June to 18th July 2018	-

Results and cut-off

Cut Off for JEE Advanced

JEE Advanced has several cut-offs, both subject-wise and aggregate. These cut-offs vary across categories, as shown in the following table:

Rank List	Minimum Percentage of Marks in Each Subject	Minimum Percentage of Aggregate Marks
Common rank list (CRL)	10.0	35.0
OBC-NCL rank list	9.0	31.5
SC rank list	5.0	17.5
ST rank list	5.0	17.5
Common-PwD rank list (CRL-PwD)	5.0	17.5
OBC-NCL-PwD Rank list	5.0	17.5
SC-PwD rank list	5.0	17.5
ST-PwD rank list	5.0	17.5
Preparatory course rank lists	2.5	8.75

How to prepare

Preparation Tips for JEE Advanced

- **Focus:** Focus more on understanding topics rather than just formulae. This way, you can ensure that you imbibe the method used to arrive at the formulae. Doing so will also ensure that those formulae are always at your fingertips.
- **Organise your time:** Watch the time taken to solve questions. Subject-wise allocation of time will help you attempt the JEE Advanced paper within the given time constraint. This will also help in exam-simulation. While in the exam, you should be able to filter out the easy questions from the difficult ones, so you know the amount of time you need to allot to them.
- **Keep taking breaks:** Burnout should be avoided at all costs. Keep taking periodic breaks to refresh yourself. Talk to friends once in a while, and don't bury your social life entirely.
- **Fulfil targets on a daily basis:** Your daily study plan must include learning and revision. So assign daily goals for yourself and fulfil them. This will boost your confidence and avoid time wastage.
- **Practice solving sample papers:** Once you are thorough with a concept or chapter, solve previous years' papers (for the last 8-10 years at least). This will guide you through the transitions in question patterns and will prepare you to anticipate them. Sample papers from other sources, such as All India Test Series, will also help you in formulating strategies and eliminating weaknesses.
- **Subject-wise planning:** Based on your preference, select subject-wise topics and cover them each day. Remember, your weakness may be someone else's strength so never ignore a less favourite topic. Refer the latest JEE Advanced syllabus for your study plan.
- **Clarity in concepts:** Develop a clear thinking process so that the moment you see a question, you know the correct theory or formula to be used.
- **From basics to classics:** Always start from the fundamentals and then gradually move further. In this way, you can tackle even a difficult problem as you are well-versed with the concept. Jumping straightaway to an advanced problem is not a good idea.
- **Numericals are crucial:** Solving enough numericals is crucial to crack JEE Advanced. Practise at least 40-50 numericals for each day of your JEE Advanced preparations. With subjects like Maths, Physics and Chemistry, there is no dearth of numerical problems. Toppr brings you a huge question bank, with quality questions to test yourself and solutions to keep learning simultaneously.
- **Save your best for last:** Study more crucial sections of the syllabus in the beginning and push easier ones for later. Mark difficult portions in your notes so that revision towards the end becomes easier.
- **Discuss with your peers:** Discussing and clearing doubts with fellow aspirants and mentors can help you overcome your weaknesses. Interact with them without any hesitation to devise an efficient study plan for yourself.