Glimpses

Joint Entrance Examination (Main & Advanced) – JEE

Joint Entrance Examination (JEE) is an engineering entrance examination conducted for admission to various engineering colleges in India. It is constituted by two different examinations - JEE Main and the JEE Advanced. The Joint Seat Allocation Authority (JoSAA) conducts the joint admission process for a total of 16 Indian Institute of Technology (IIT) campuses, 31 National Institute of Technology (NIT) campuses, 25 Indian Institute of Information Technology (IIIT) campuses and 23 other Government Funded Technical Institutes (GFTIs) based on the rank obtained by a student in JEE Mains and JEE Advanced.

There are some institutes like Indian Institutes of Science Education and Research (IISERs), Rajiv Gandhi Institute of Petroleum Technology (RGIPT) and Indian Institute of Science (IISc) use the score obtained in JEE Advanced as the basis for admission. These institutes do not participate in the post examination counselling session. Students aspiring to pursue education in the fields of Biology / Microbiology / Molecular Biology have to appear for exams similar to NEET.

JEE Main has two papers, Paper-1 and Paper-2. Candidates may opt for either or both of them. Both papers contain Multiple Choice Questions (MCQ). Paper 1 is for admission to B. E. / B. Tech courses and is conducted only online. Paper-2 is for admission in B.Arch and B.Planning courses and is conducted offline only. From January 2020 an additional Paper - 3 has been introduced for B. Planning courses separately.

JEE Main has a fixed exam structure and is not subject to change every year. Paper-1 is of 3 hours duration and consists of 30 multiple-choice (single-correct) questions in each of the three subjects (Physics, Chemistry, and Math). 4 marks are awarded for correct answers and 1 mark is deducted for incorrect answers. New pattern consisting of 20+5 questions per subject is introduced in January 2020 with 20 multiple choice questions + 5 numerical type

question. In MCQ, 4 marks are awarded for correct answers and no marks are deducted from numerical type questions.

The eligibility criteria for taking the JEE (Main) exam are:

- Qualifying exam i.e. 10+2 or equivalent exam
- Qualifying exam subjects
- Marks secured in the qualifying exam
- It is mandatory for candidates to have taken 5 subjects in class XII or equivalent qualifying exam
- The subjects for B. Tech / B.E. are:
    - Physics
    - Mathematics
    - Chemistry

JEE Main candidates can appear in the exam for 3 consecutive years. Since the entrance will be conducted twice a year, the candidate can choose to appear in both the attempts.

However, the attempt for a particular academic year will be considered as one.

The top students who take the JEE-Main qualify for the **JEE-Advanced** examination, which makes them eligible for admission to IITs.

The eligibility criteria for taking the JEE (Advanced) exam are:

- Candidates should rank among the top candidates in Paper-1 of JEE (Main), broken down per category
- Candidates should be less than 25 years of age, with five-year relaxation for SC, ST, and PwD candidates
- Candidates can attempt examination at most two times in two consecutive years
- Candidates should have qualified through the Class XII Board Examination (or equivalent) in the previous year
- Candidates should not have accepted admission in any of the IITs earlier

In addition, candidates are required to either be within the category-wise top 20th percentile of successful candidates in the Class XII Board Examination or secure a 75% mark (65% for SC, ST and PwD).

JEE Advanced, which is being conducted online (CBT format) from 2018 has two papers, Paper 1 and Paper 2, each of 3 hours and both papers are compulsory.

Paper-1 and Paper-2 of JEE Advanced comprises of 3 separate sections - Physics, Chemistry, and Mathematics. There is negative marking on any incorrectly answered question.

In 2019, there were a total of 13,853 IIT seats for B.Tech and there are a total of 16 IITs which participate in JEE Advanced.

The Indian Institute of Technology (IITs) are an autonomous public technical and research University in India and are amongst the most reputed institutes of technology in the world.

The first IIT was founded in 1950 in Kharagpur, West Bengal and subsequently 4 more IITs were established at Bombay (1958), Madras (1959), Kanpur (1959), and Delhi (1961).

The IIT-JEE, initially called the Common Entrance Exam (CEE), was first conducted in 1961, coinciding with the 1961 IIT Act. From 2002, an additional exam called the AIEEE was introduced, and it was used for admissions to institutions other than the IIT. In 2012, the AIEEE was changed to JEE (Main), and IIT-JEE was renamed JEE (Advanced); the JEE (Main) had become the screening exam for JEE (Advanced).

National Institute of Technology (NITs) are also are an autonomous public technical and research University in India and are amongst the most reputed institutes of technology in the world.

As of 2019, the total number of seats for undergraduate programs was 21,133 and for postgraduate programs 10,550 in all the 31 NITs put together. The B.Tech degree is the most common undergraduate degree in the NITs in terms of student enrollment. The B.Tech course is based on a 4-year program with eight semesters, while the Dual Degree and Integrated courses are 5-year programs with ten semesters. In all NITs, the first year of B.Tech and Dual Degree courses are marked by a common course structure for all the students, though in some

NITs, a single department introduction related course is also included. The common courses include the basics from most of the departments like Electronics, Mechanics, Chemistry, Electrical, and Physics.

National Eligibility Cum Entrance Test (NEET)

NATIONAL ELIGIBILITY CUM ENTRANCE TEST (NEET) is conducted by the National Testing Agency (NTA) for admission to MBBS/BDS Courses and other undergraduate medical courses in approved/recognized Medical/Dental & other Colleges/ Institutes in India. The Test was held for the first time in 2013 across India. NEET-UG is a single entrance test for admissions to more than 66,000 MBBS and BDS seats across India.

National Medical Commission Act, 2019 provides for holding of a common and uniform National Eligibility-cum-Entrance Test (NEET) for admission to the undergraduate medical courses in all medical institutions including those governed under any other law. Thus, the admission to MBBS course in AIIMS, New Delhi, JIPMER and all AIIMS like Institutions are made through NEET. The eligibility criteria applicable to appear in NEET (UG) is also applicable to the candidates desirous to take admission to INIs like AIIMS.

The total number of seats offered under NEET are 66,000 which is distributed accordingly.

The eligibility criteria for taking NEET:

- Candidates must have passed 10+2 or equivalent with Physics, Chemistry, Biology/Biotechnology and English as core subjects from a recognized board
- Candidates who are appearing for the class 12 or equivalent exam are also eligible to apply for NEET
- Candidates must have completed 17 years as on December 31 of the year

The questions in NEET are from Physics, Chemistry, Botany & Zoology with 45 questions from each section. Total marks is 720 and the type of questions is MCQ (Multiple Choice Questions). A correct response gives the candidate 4 marks and 1 mark is deducted for every wrong answer. No marks are deducted if the candidate has not attempted a question. The total time duration is of 3 hours.