

IIT JEE 2007 Analysis

Changing pattern of the IIT JEE is nothing new – recent years have experienced many such changes. However, the JEE 2007 will be regarded as a milestone for more than one reason. This was the first JEE that had two stages (papers) both of which were objective in nature. More importantly, there is a qualitative shift in the kind of questions asked – these do not require a lot of rigorous problem solving, but rather a fairly good understanding of the concepts and the ability to comprehend and analyse. This shift is welcome. If it continues, we may see lesser academic stress for the future aspirants.

JEE 2007 had two papers, each of 3 hours and containing different sections in Physics, Chemistry and Mathematics. Both the papers had identical structures. Each paper had 22 questions in each subject, making it a total of 66 questions to a paper, and 132 questions for both papers together. Each subject in a paper had 81 marks, which totaled to 243 marks for the paper, and 486 marks for both taken together.

The table below summarizes the structure of each subject in a paper.

	Marks per Question	Negative Marks	Total Marks	Remarks
Section 1: 9 Questions	3	– 1	27	Multiple Choice (MCQ) with only one option correct
Section 2: 4 Questions	3	– 1	12	Assertion – Reason type
Section 3: 2 passages, 6 Questions	4	– 1	24	Passage based questions – 3 questions per passage
Section 4: 3 Questions	6	Nil	18	Match the following type questions, with more than one match possible
Total			81	

In the Physics sections there were minor shifts in the usual distribution of marks and questions. Mechanics reigned supreme with 33% marks, as usual. However, Electricity and Magnetism, which normally accounts for about 30%, saw its share go down to 22%. Optics had a sizeable contribution of 13%, followed by Modern Physics at 11%. The balance topics covered about 20%.

Chemistry also saw a slight shift with General and Physical Chemistry portions contributing to more than what they had in the past papers. General and Physical Chemistry contributed to about 40%, while Organic and Inorganic Chemistry contributed about 30% each. Some of the topics that featured more in the papers were Electrochemistry, Energetics, Bonding, p-block elements, and General Organic Chemistry.

In Mathematics the maximum contribution came from Calculus (33%), as usual, followed by Algebra and Coordinate Geometry. One notable feature in Mathematics was the increased weightage of Coordinate Geometry. Trigonometry and Vectors were minor contributors at 6% each.

Now, about the subject cut-offs and overall cut-off. The initial response of many students, especially after Paper 1, was that the papers were much easier than what they had expected. However, after carefully going over their performance again after the exam was over, many now feel that they may have made errors because quite a few questions were tricky.

Cut-offs have never been easy to predict. However, given below is our estimate.

Subject Cut-offs (out of 162 marks):

Physics	40 to 45
Mathematics	55 to 60
Chemistry	50 to 55

Overall Cutoff (out of 486 marks): 175 to 180

Students must bear in mind that these cut-offs are only estimates. The actual cutoffs will be known only when the scorecards are received.