

IIT-JEE 2011 – Pattern and Analysis

IIT-JEE, the most challenging of the Engineering Entrance exams in the country and probably the world has proved that it has not lost its charm at all and has retained its glory as ever. IIT-JEE 2011 was conducted on 10th April 2011 in 131 cities all over India in 1051 centres for 4,85,262 registered candidates. Paper 1 was from 9.00 – 12.00 hrs and paper 2 from 14.00 to 17.00 hrs.

For the first time, JEE has announced that scanned images of the Optical Response Sheets with the candidates' details and their responses (answers) will be displayed on the JEE website after 25th May, 2011. Answer key to the JEE 2011 questions will be displayed on the JEE website on 15th May, 2011 after completing the evaluation of OMR sheets.

There were 10 versions for IIT-JEE 2011 – 0 to 9. The order of subjects in both papers were the same – Chemistry, Mathematics and Physics but the total marks, the number of questions and types of questions in both papers were distinct from each other.

Paper 1

Paper 1 had 69 questions in total for 240 marks - in the order of Chemistry, Physics and Mathematics. Each subject had 23 questions and the pattern was exactly the same for all the subjects.

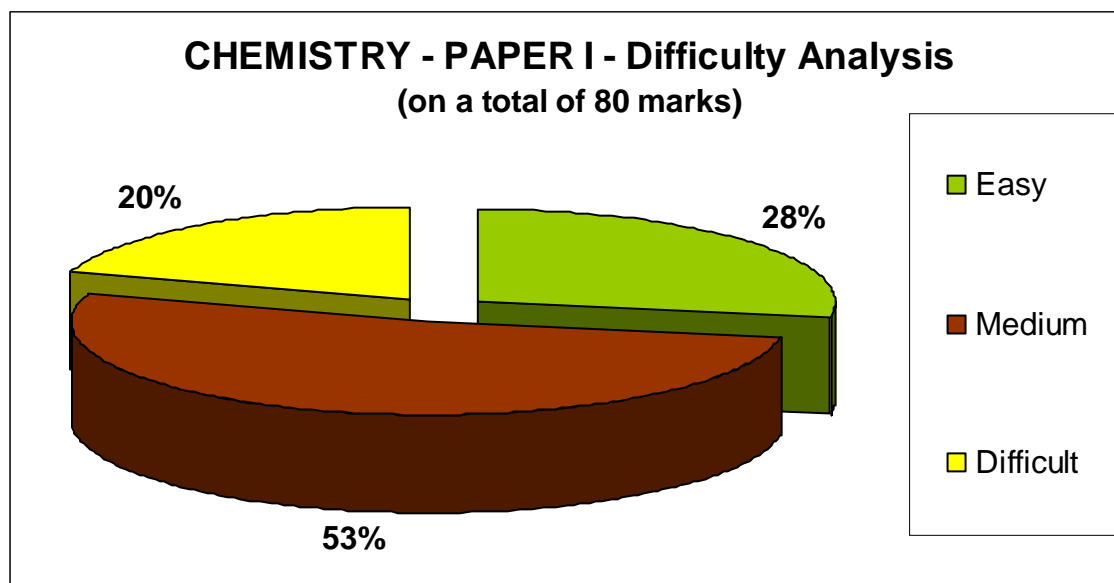
Type of question	Number of questions	Marks for a correct answer	Negative marking	Total Marks for the Section
Section I - Single Correct Answer Type	7	3	– 1	21
Section II - Multiple Correct Answers Type	4	4	NIL	16
Section III - Paragraph Type	5	3	– 1	15
Section IV - Integer Answer Type	7	4	NIL	28

What was new in IIT-JEE 2010 in comparison with earlier years – Paper 1:

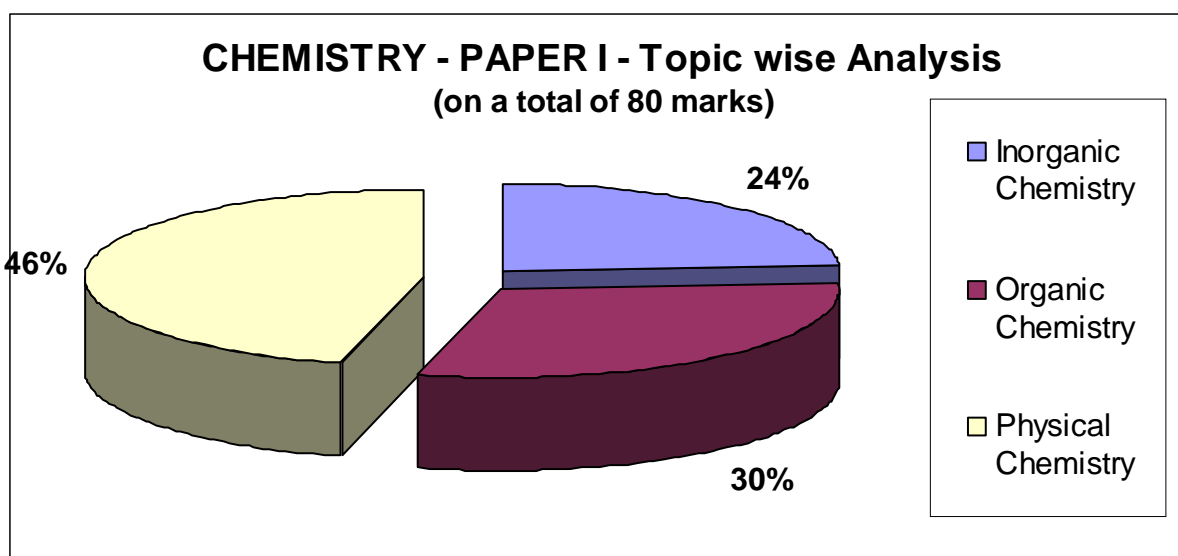
- NO partial marks are awarded for correct answers in Multiple Correct Type questions. Last year there were partial marks.

Part 1 - Chemistry

This is a moderate level paper leaning more towards easy level of difficulty. The usual weightage of Physical > Organic > Inorganic Chemistry is maintained. Most of the questions in this paper evaluate the conceptual clarity of the student.

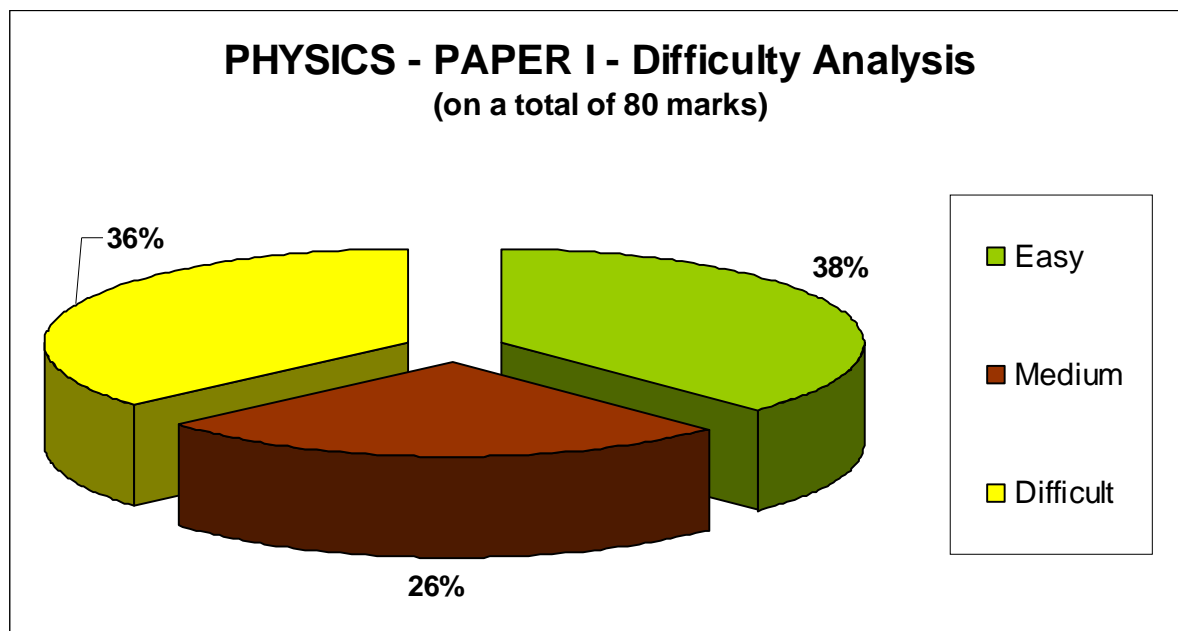


The topic wise distribution of the questions is shown below:

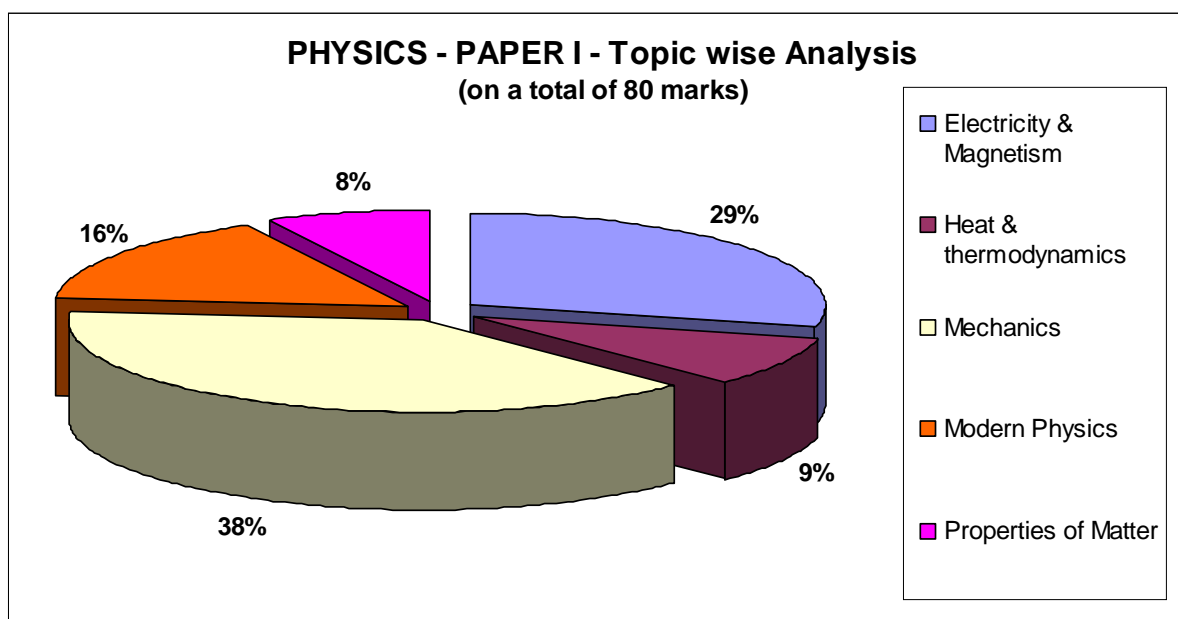


Part 2 – Physics

Overall the difficulty level of the paper was moderate. Still there were a few numerical questions involving elaborate mathematical calculations making them time consuming and hence difficult. No representation of Optics in this paper. Major focus in this paper was on Mechanics (for a total marks of 31)



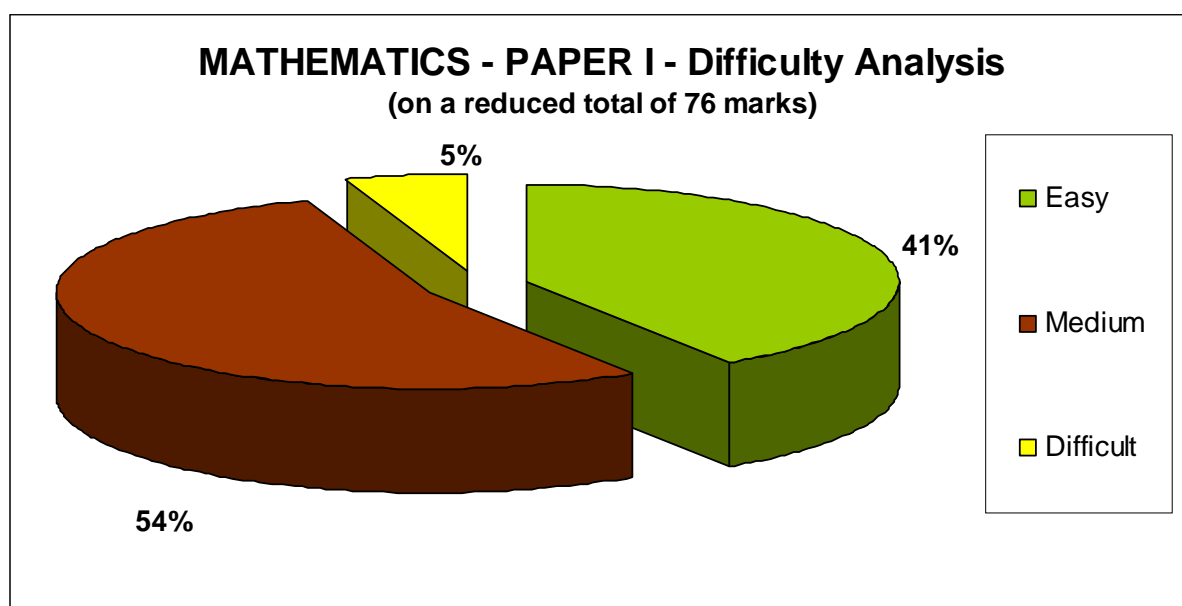
The topic wise analysis of paper 1 for Physics is shown below.



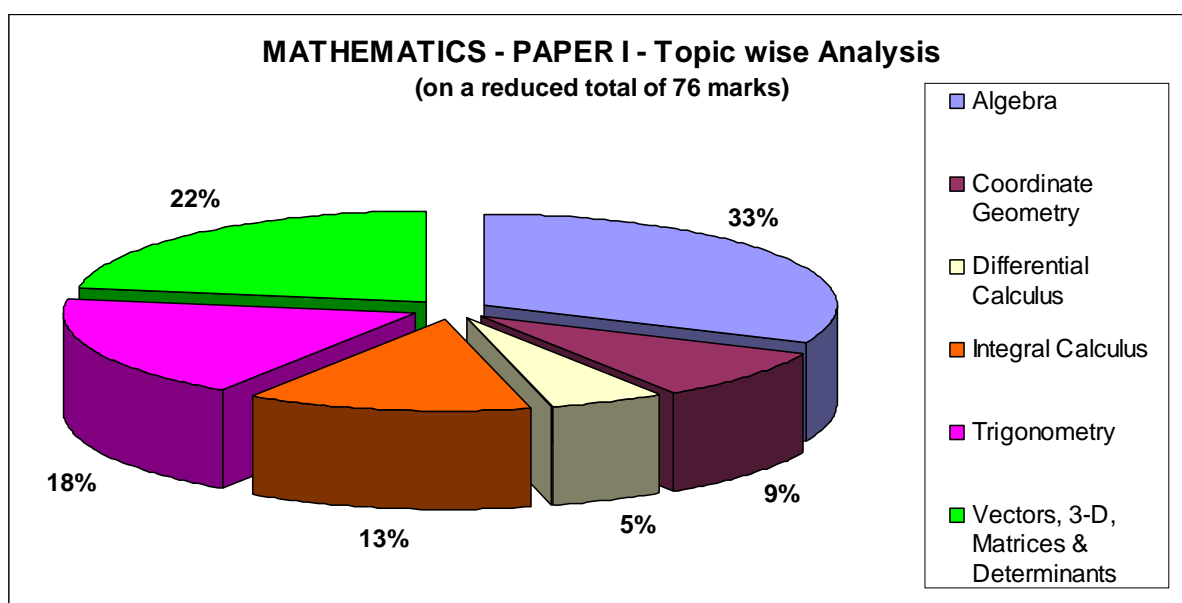
Part 3 – Mathematics

Mathematics part of the 2011 JEE paper 1 was considered easier than the paper 1 of 2010. Few questions in Integer answer type require in-depth understanding of the concepts with perseverance in solving problems. Trigonometry had a good representation in the paper; the passage on matrices required quick thinking to interpret and solve the questions.

One question about ' 3×3 non-singular skew symmetric matrices' has a basic flaw since odd ordered skew symmetric matrices are always singular. As shown below paper 1 was a moderately difficult paper.



Algebra and Matrices & Determinants, Vectors had the major shares with Calculus and Trigonometry following close. Topic wise analysis is given below.



Paper 2

Paper 2 had 60 questions in total - in the order of Chemistry, Physics and Mathematics. Each subject had 20 questions and as in paper 1 the pattern was exactly the same across the subjects. Questions had differential markings, each subject had 80 marks and the maximum mark for the paper was 240.

Type of question	Number of questions	Marks for a correct answer	Negative marking	Total Marks for the Section
Section I - Single Correct Choice Type	8	3	- 1	24
Section II – Multiple Correct answers Type	4	4	NIL	16
Section III - Integer Answer Type	6	4	NIL	18
Section IV – Matrix Match Type	2	8	NIL	16

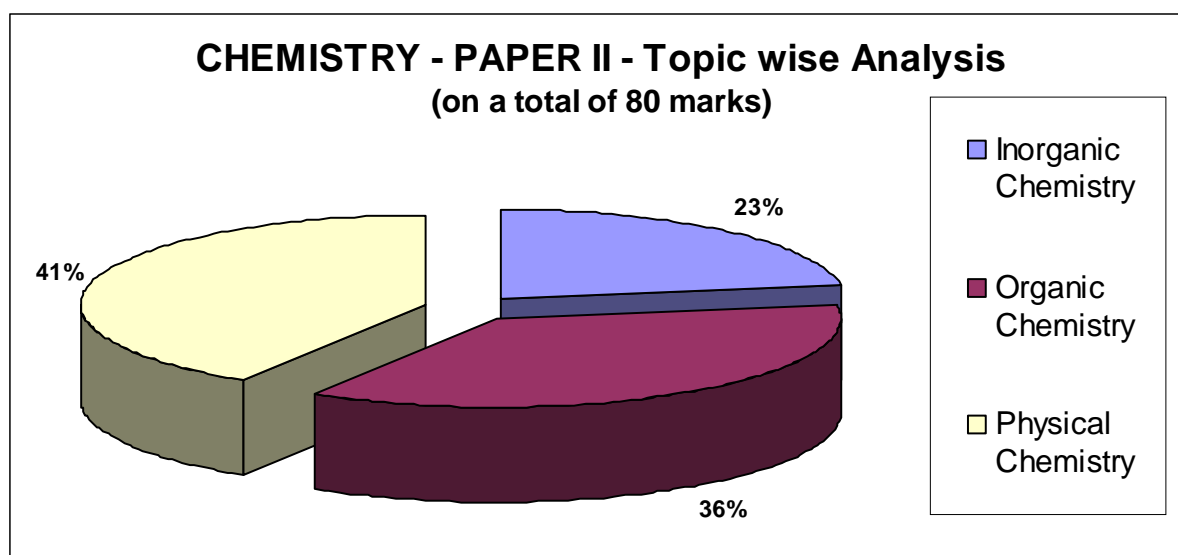
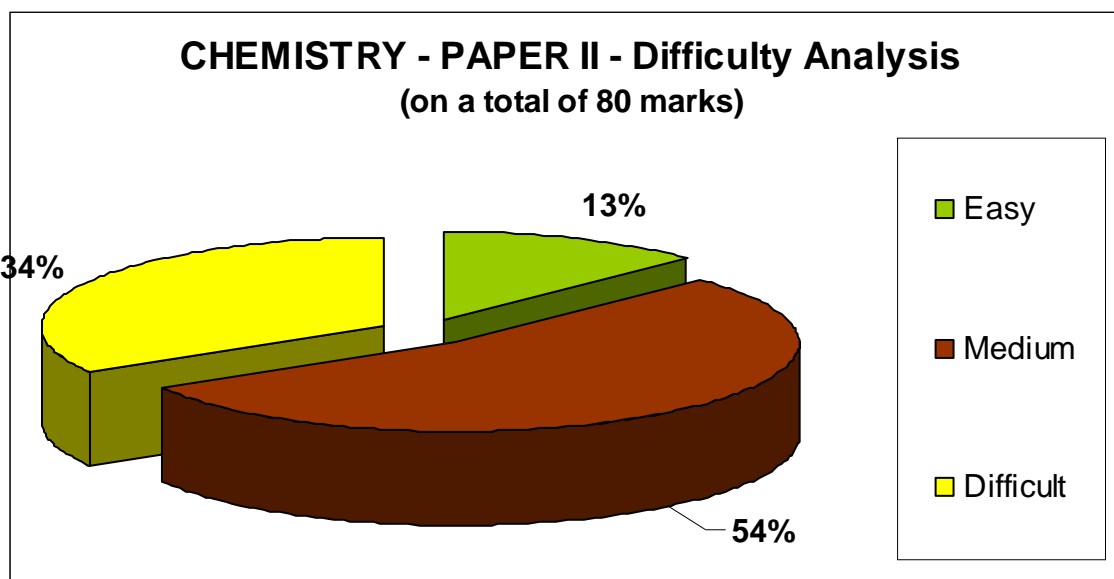
What was new in IIT-JEE 2011 in comparison with earlier years – Paper 2:

- For the first time Multiple Answer Type, Integer Answer Type and Matrix Match Type appeared in one paper.

Part 1 - Chemistry

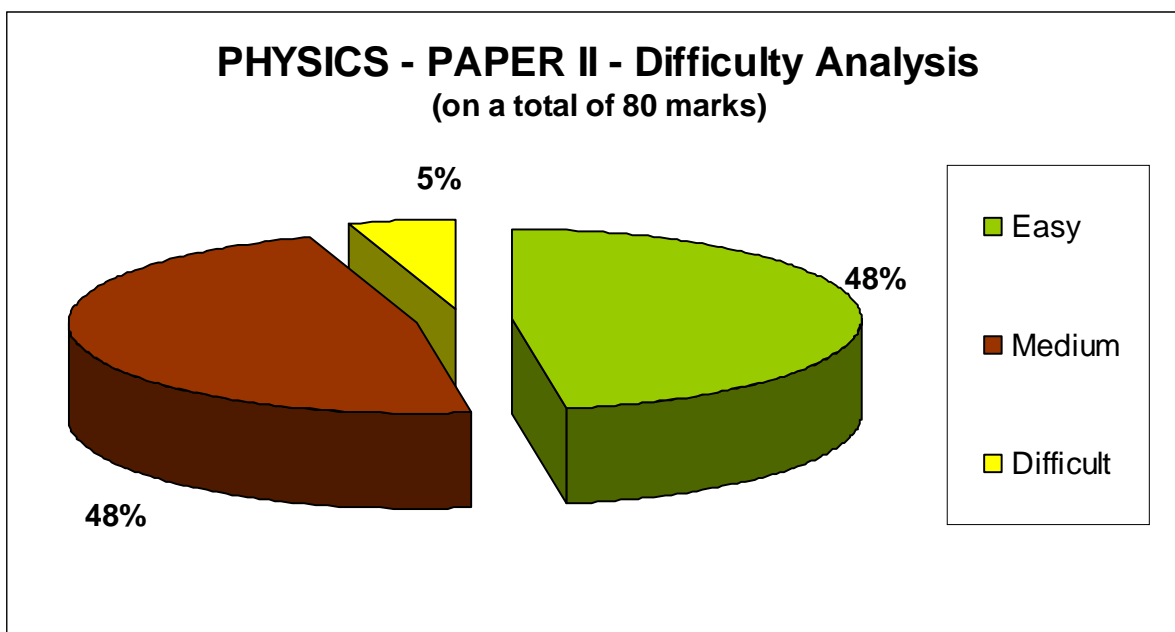
Paper 2 of IIT-JEE 2011 was difficult compared to paper 1. Weightage wise the Physical > Organic > Inorganic formula is maintained. Generally the nature of the questions in Physical chemistry is calculation oriented and hence the difficulty. Also complexity of Organic questions made this paper a challenging one.

The difficulty analysis and the topic wise analysis are shown below:

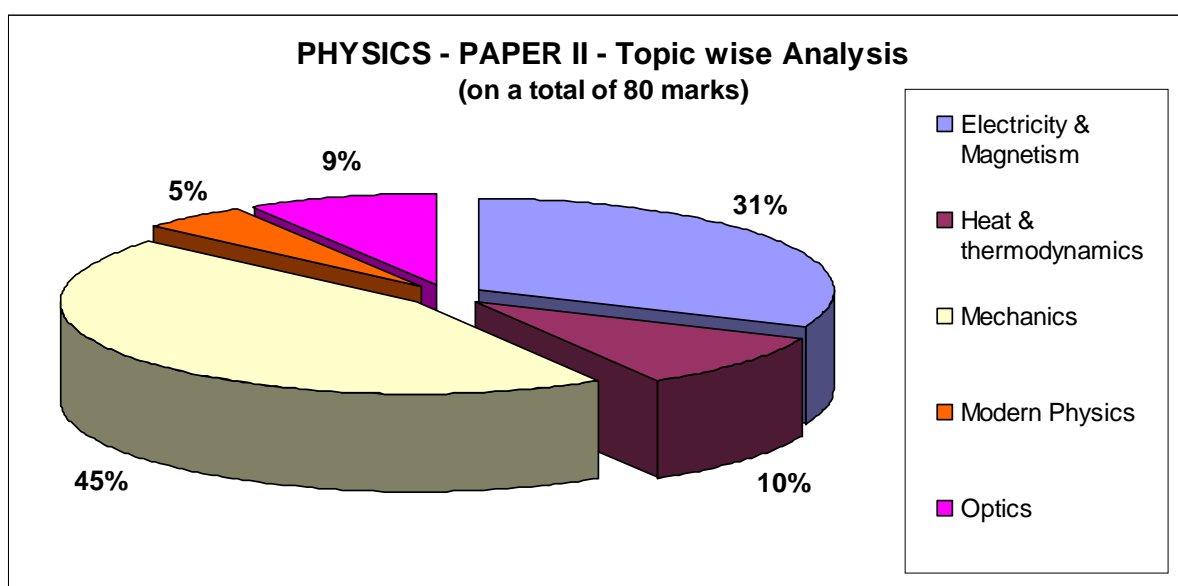


Part 2 – Physics

Questions from certain areas which were not represented in paper 1 (gravitation, optics etc.) appeared in paper 2 thus balancing the syllabus coverage. The difficulty level of this paper was slightly less than paper 1 especially the Integer Answer Type.



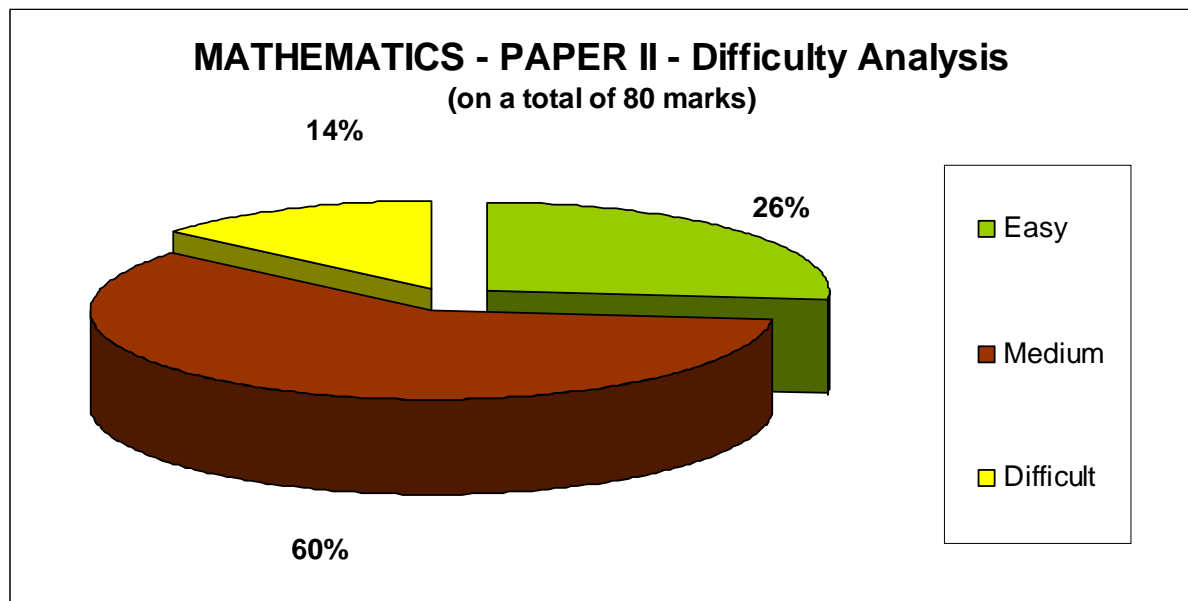
And the less colourful distribution of marks across the topics in Physics shown below confirms the overall lion's share of Mechanics in Physics part of the IIT-JEE 2011 paper 2.



Part 3 – Mathematics

Paper 2 Mathematics part was tougher than the first paper – for the complexity in combining topic areas, for e.g. the matrix match had questions from 4 different areas posing a challenge for the student in the exam hall. Likewise, this paper required more calculations in solving than the first paper.

Overall Mathematics part of IIT-JEE 2011 was less difficult and less time consuming than that of 2010.



The second paper was restricted to lesser number of areas, for e.g. there were no questions from Trigonometry. But this time Differential Calculus and Coordinate Geometry were well represented. The topic wise distribution is shown below:

