# JEE ADVANCED 2015 – Pattern and Analysis

JEE Advanced 2015 was conducted on  $24^{\text{th}}$  May 2015, only for the privileged candidates declared as 'eligible' through the JEE Main 2015. The exam was conducted in 98 cities across India and in Dubai. JEE Advanced 2015 consists of two papers – Paper 1 was from 9.00 - 12.00 hrs and paper 2 from 14.00 to 17.00 hrs.

Like in the past two years, the aspirants were instructed to use only a Black Ball Point pen on the ORS (Optical Response Sheet) sheet and were permitted to carry a copy of their OMR sheets with them as they walk out of the examination hall. The ORS of the candidates will be displayed on the JEE website during  $3^{rd}$  to  $5^{th}$  of June 2015.

There were 10 versions for JEE Advanced 2015 - 0 to 9. The order of subjects in both papers were the same – Physics, Chemistry and Mathematics; the total marks for the paper, the number of questions in each paper were also the same but the type of questions in both papers were distinct from each other.

#### Paper 1

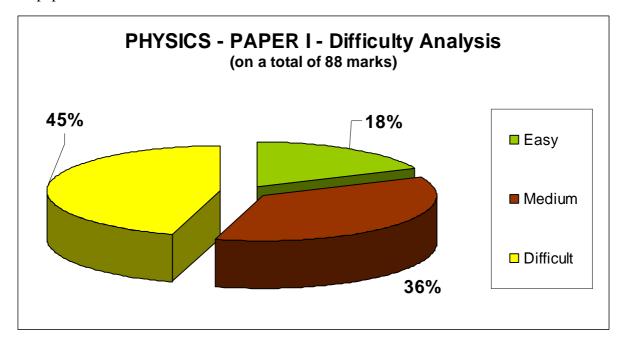
Paper1 had 60 questions in total for 264 marks - in the order of Physics, Chemistry and Mathematics. Each subject had 20 questions totaling to 88 marks and the pattern was exactly the same for all the subjects. The Matrix Match Type questions have appeared back in JEE Advanced papers after a gap of three years. Overall the paper was supposed to be difficult for the students as it included only multiple answers and integer answer type of questions. Also the Multiple Correct answer type questions awarded two negative for a wrong answer.

Type of question	Number of questions	Marks for a correct answer	Negative marking	Total Marks for the Section
Section I – Integer Value Correct Type	8	4	NIL	32
Section II – One or More than One Options Correct Type	10	4	- 2	40
Section III – Matrix Match Type	$2 \times 4$	2	- 1	16

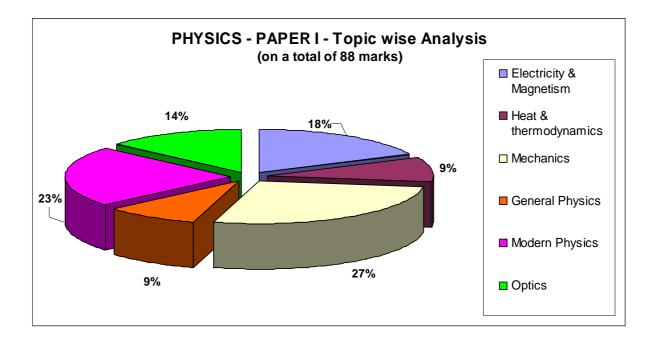
## Part 1 - Physics

The Physics part was more focused on the Class XII area. Innovative manipulation of the concept ideas is required to solve many of the questions. Many questions are framed in such a way to test the confidence level of the students, i.e. the framing of the questions may scare the students.

In the student perspective the following would be the difficulty level of the Physics part of the paper.



The topic wise distribution of the questions is shown below:



## Part 2 – Chemistry

In general, the questions in Chemistry may be considered as moderate in difficulty level. But the one negative aspect of the paper would be that there is a tendency to create confusion when a student applies his/ her knowledge to arrive at the answer; and in this process some might loose precious time and further confidence. It may also be noted that the syllabus represented in this paper comes from a rather narrower range of portions.

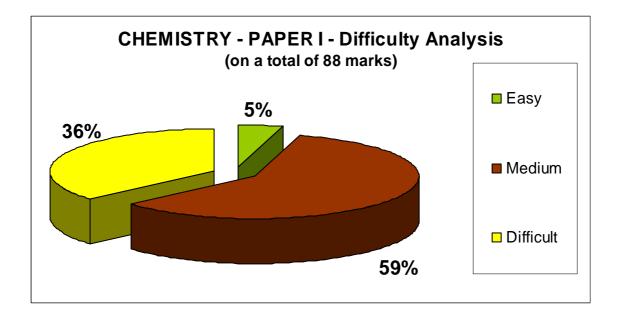
A broad division of the paper would be as follows:

Organic Chemistry – 7 Qns. – comparatively of higher difficulty level. More time also will be required.

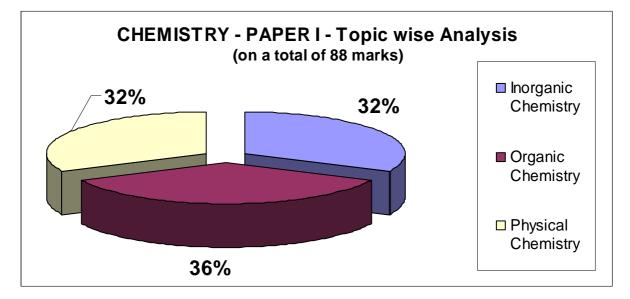
Inorganic Chemistry – 8 Qns. – comparatively easier level questions except one with confusing ambiguity.

Physical Chemistry – 5 Qns. – moderate level questions.

The paper's difficulty level is represented below.



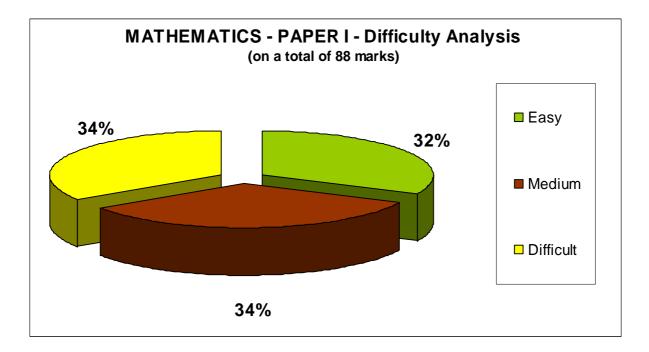
The topic wise analysis of paper 1 for Chemistry is shown below.



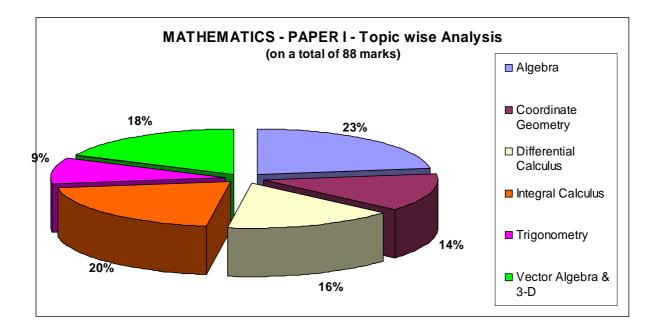
## Part 3 – Mathematics

Mathematics part of paper 1 of JEE Advanced 2015 was a moderately difficult paper and included lesser easy questions than difficult questions. The Matrix Match type questions included concepts from various areas. The easier questions were a scarcity in the paper and some of the medium level questions required longer calculations.

With only 32% of the marks under the 'easy' category, this is a challenging paper.



Representation of Algebra in the paper has reduced drastically. Calculus as a whole was the major component. Vector Algebra, 3-D, Coordinate Geometry were well represented. Topic wise analysis is given below.



## Paper 2

Paper 2 had 60 questions in total - in the same order of the first paper - Physics, Chemistry and Mathematics. Each subject had 20 questions totaling to 80 marks and as in paper 1 the

pattern was exactly the same across the subjects. All questions in this paper had 4 marks for a correct answer and the maximum mark for the paper was 240.

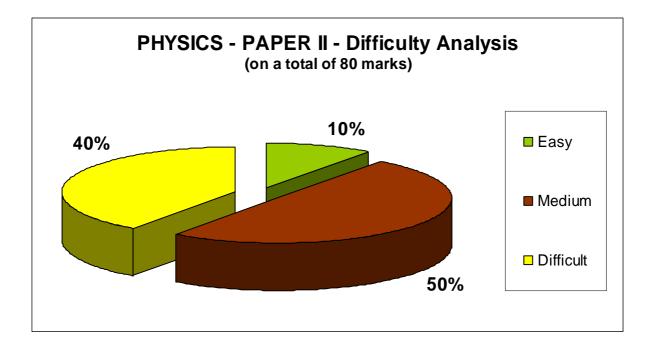
For the first time, Comprehension based questions had Multiple answers. To contribute to the difficult feel of the paper again we had Multiple correct answer and Integer answer type questions only. For all multiple correct answer type questions (similar to as in Paper 1) two negatives were awarded for wrong answers.

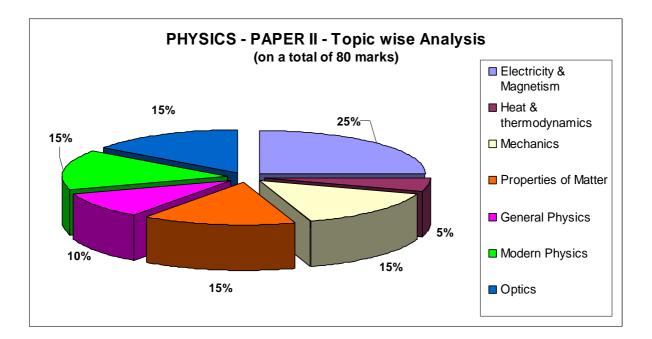
Type of question	Number of questions	Marks for a correct answer	Negative marking	Total Marks for the Section
Section I – Integer Value Correct Type	8	4	NIL	32
Section II – One or More than One Options Correct Type	8	4	- 2	32
Section III – Comprehension type (One or more options correct)	4	4	- 2	16

## Part 1 - Physics

Paper 2 also has the general characteristics of paper 1. Many of the questions are more inclined toward the math skill of the student rather than testing the conceptual clarity in Physics. Both the papers put together is rated to be difficult even for an above average student.

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





#### Part 2 – Chemistry

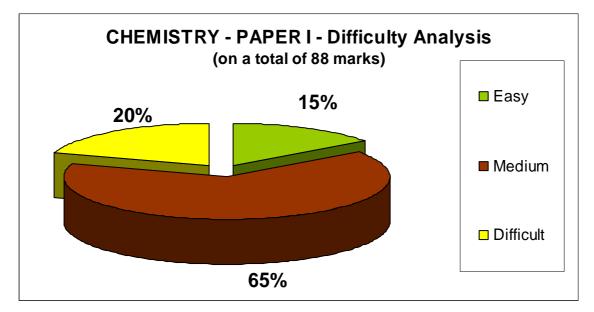
In general, the paper was moderate in difficulty, with a few questions to be termed as easy. A broad division of the paper would be as follows:

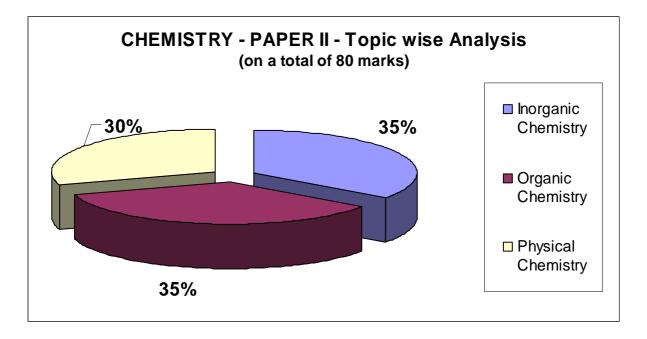
Organic Chemistry -7 Qns. Of medium difficulty level. The paragraph type questions even though were put under Multiple correct type, they had only one correct answer, which may unsettle the student's presence of mind.

Inorganic Chemistry – 8 Qns. – moderate level questions but require more time from the student.

Physical Chemistry -5 Qns. - comparatively difficult level questions in terms of the time required to solve.

The difficulty analysis and topic wise distribution are as shown below:

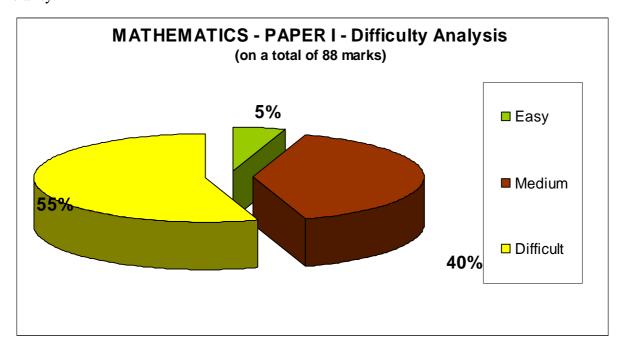




## Part 3 – Mathematics

Mathematics part of Paper 2 – JEE Advanced 2015 was in all measures more difficult than paper 1. Almost all questions were time consuming or therefore time consuming. The

paragraph type question in Probability theory was not too difficult but required arithmetic clarity.



Algebra and Differential Calculus had a major share again in this paper too. The topic wise distribution is shown below:

