

JEE ADVANCED

2013

TOPIC WISE ANALYSIS



JEE Advanced 2013 Paper Analysis

Exam Conducting Body	IIT Delhi
Exam Date	2nd June, 2013
Exam Paper	2 papers (Paper 1 and Paper 2)
Subjects	Physics, Chemistry, Maths
Total Marks	Paper 1: 180 Marks Paper 2: 180 Marks Total: 360 Marks
Question Types	Single Answer MCQs, Multiple Answer MCQs, Single Digit Integer, Comprehension Type MCQs, Matching Type MCQs
Number of Seats Available	9876

JEE Advanced 2013 Paper Marking Scheme

JEE Advanced 2013 exam is divided into Paper I and Paper II based on the following pattern.

Paper I and Paper II			Paper I		Paper II	
Question Pattern	Marking Scheme	Negative Marking	No. of Qs	Total Marks	No. of Qs	Total Marks
Single Answer MCQ	2 Marks per Question	Zero	30	60	-	-
Multiple Answer MCQ	4 Marks per Question in Paper 1, 3 Marks per Question in Paper 2	-1	15	60	24	72
Single Digit Integer Type	4 Marks per Question	-1	15	60	-	-
Comprehension Type MCQ	3 Marks per Question	-1	-	-	24	72
Matching Type MCQ	3 Marks per Question	-1	-	-	12	36

JEE Advanced 2013 Paper: Distribution of Questions

The weightage of questions from class 11 and 12 in both Paper I and Paper II are as follow:

Subject	Class 11		Class 12	
	No. of Questions	Total Marks	No. of Questions	Total Marks
Physics	19	57	21	63
Chemistry	07	21	33	99
Mathematics	14	43	26	77
Total	40	121	80	239

JEE Advanced 2013: Expert's Viewpoint

As per the experts, the two papers were set in the following manner:

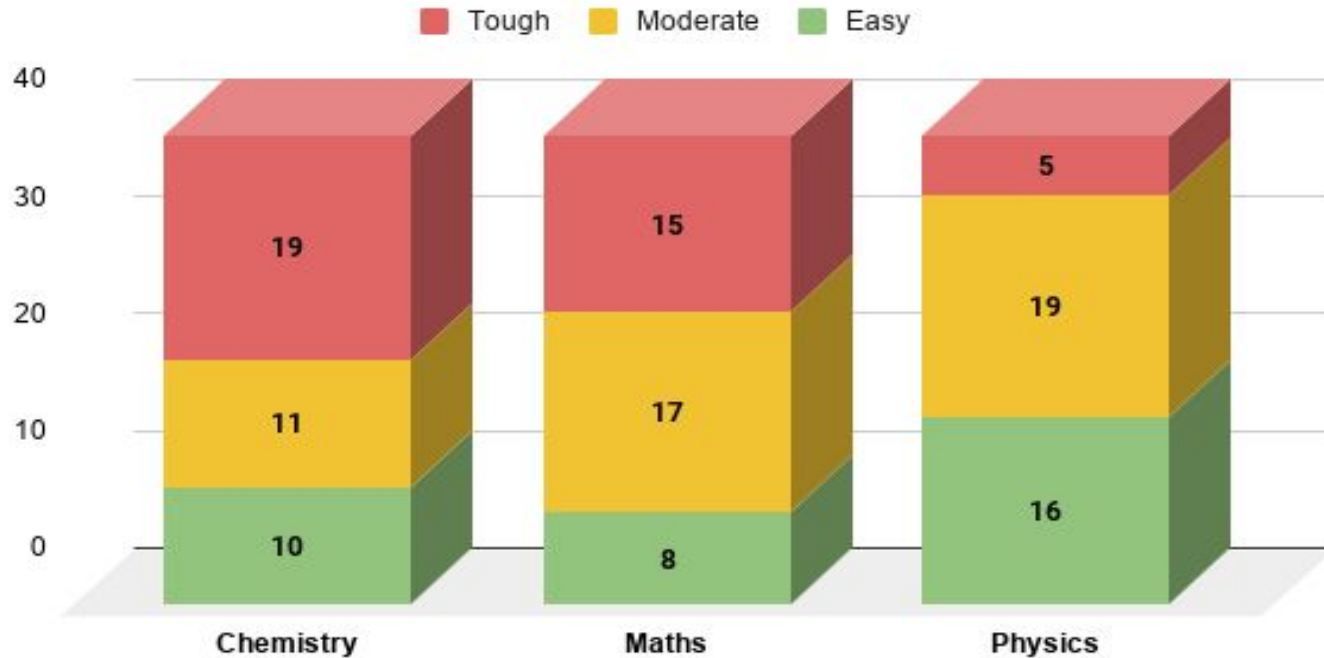
Subjects	Difficulty Level
Physics	Physics was of a moderate level. Students found this section easy to solve.
Chemistry	In chemistry portion, questions in Paper 1 were moderate while Paper 2 seems to be tough
Maths	Paper 1 of Maths was tough while paper 2 was moderate
Overall	The overall difficulty levels of the papers in the JEE Advanced 2013 seemed to be tough compared to the IIT-JEE 2012 exam.

JEE Advanced 2013 Overall Difficulty Analysis

Subject	Easy		Moderate		Tough	
	No. of Questions	Total Marks	No. of Questions	Total Marks	No. of Questions	Total Marks
Physics	16	48	19	58	05	14
Chemistry	10	27	11	29	19	64
Maths	08	22	17	52	15	46
Grand Total	34	97	47	139	39	124

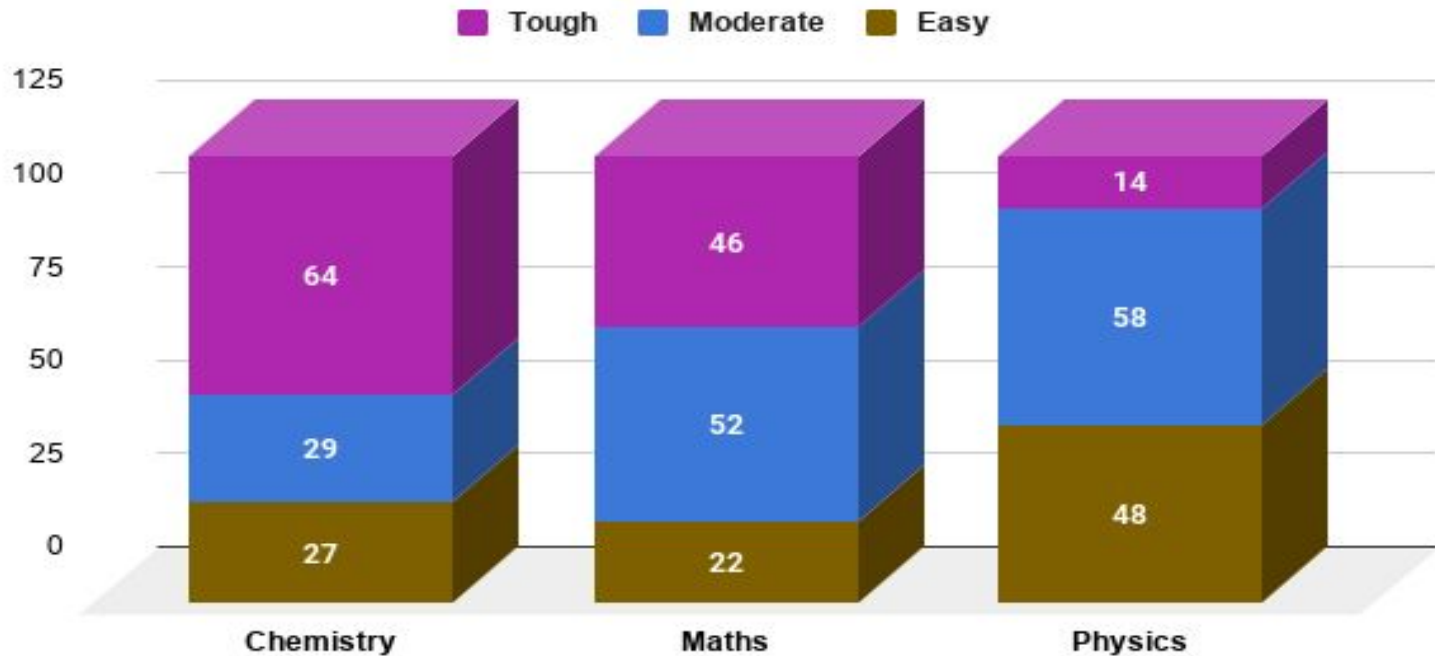
JEE Advanced 2013 Question-wise Difficulty Level

Question wise Difficulty Level



JEE Advanced 2013 Marks-wise Difficulty Level

Marks wise Difficulty Level



JEE Advanced 2013 Paper Analysis: Physics

- Physics paper was doable.
- Questions were asked from all the units but more number of questions were from Mechanics topic.
- The number of questions asked from Paper I and Paper II were of same weightage carrying 20 questions each.

Paper	Class 11		Class 12	
	No. of Questions	Total Marks	No. of Questions	Total Marks
Paper 1	10	30	10	30
Paper 2	9	27	11	33

Topic wise Question Breakup in Physics

Topics	No of Questions	Total Marks
Nuclear Physics	4	13
Electromagnetic Field	4	13
Work, Power and Energy	4	12
Modern Physics	3	9
Electrostatics	2	7
Geometrical Optics and Physical Optics	3	7
Alternating Current	2	6
Centre of Mass	2	5
Error in Measurement	2	5
Heat Transfer	2	5
KTG and Thermodynamics	2	5
Fluids Mechanics and Properties of Matter	1	4
Circular Motion	1	4

Topic wise Question Breakup in Physics

Topics	No of Questions	Total Marks
String Wave	1	4
Capacitance	1	4
Rigid Body Dynamics	1	4
Unit and Dimensions	1	3
Sound Waves	1	3
Gravitation	1	3
Elasticity and Viscosity	1	2
Wave Optics	1	2
Total	40	120

JEE Advanced 2013 Paper Analysis: Chemistry

- Chemistry section in paper I was on the moderate side whereas paper II was relatively difficult.
- The questions asked from class 12 syllabus were high as compared to class 11 syllabus.
- Chemistry was difficult section among all.
- Questions were asked from all the areas of Organic, Inorganic and Physical Chemistry.

Paper	Class 11		Class 12	
	No. of Questions	Total Marks	No. of Questions	Total Marks
Paper 1	2	6	18	54
Paper 2	5	15	15	45

Topic wise Question Breakup in Chemistry

Topics	No of Questions	Total Marks
Transition Elements and Coordination Chemistry	3	10
Gaseous State	3	10
Qualitative Analysis	4	10
p-Block	3	9
Aromatic Compound	3	9
Biochemistry	2	8
Carboxylic Acid and their Derivatives	2	7
Chemical Kinetics	2	6
Electrochemistry	2	6
General Organic Chemistry-II	2	6
Metallurgy	2	5
Colligative Property	1	4
General Organic Chemistry-I	1	4
Chemical Equilibrium	1	3

Topic wise Question Breakup in Chemistry

Topics	No of Questions	Total Marks
Chemical Bonding	1	3
Ionic Equilibrium	1	3
Atomic Structure and Nuclear Chemistry	1	3
Hydrocarbon	1	3
Carbonyl Compounds	1	3
Reaction Mechanism	1	2
Thermodynamics and Thermochemistry	1	2
Solid State	1	2
Surface Chemistry	1	2
Total	40	120

JEE Advanced 2013 Paper Analysis: Maths Section

- Mathematics section was of moderate to difficult level.
- Few questions in this section were tricky whereas few were calculative and time consuming.
- The weightage of questions asked from class 12 was higher than class 11.
- Paper 1 was difficult as compared to Paper 2.

Paper	Class 11		Class 12	
	No. of Questions	Total Marks	No. of Questions	Total Marks
Paper 1	5	16	15	44
Paper 2	9	27	11	33

Topic wise Question Breakup in Maths		
Topics	No of Questions	Total Marks
Application of Derivatives	7	22
Complex Numbers	5	14
Probability	4	12
Coordinate Geometry (3-D)	4	12
Vector	3	9
Parabola	2	6
Inverse Trigonometric Function	2	5
Binomial Theorem	1	4
Permutation and Combination	1	4
Sequence and Series	1	4
Matrix and Determinants	1	4
Methods of Differentiation	1	4
Solution of Triangle	1	3

Topic wise Question Breakup in Maths		
Topics	No of Questions	Total Marks
Fundamentals of Mathematics	1	3
Circle	1	3
Limit of Function	1	3
Differential Equation	1	2
Straight Line	1	2
Definite Integration	1	2
Area under curve	1	2
Total	40	120

JEE Advanced 2013 Cutoff

The qualifying criteria of JEE Advanced 2013 is as mentioned below:

	Category	Percentage	Absolute Mark
Each Subject	GE	10%	12
	OBC	9%	11
	SC	5%	6
	ST	5%	6
Total	GE	35%	126
	OBC	31.5%	113
	SC	17.5%	63
	ST	17.5%	63

Thank You!

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