

JEE (Main) 2013

A Detailed Analysis by Resonance

On 7-April-2013, JEE (Main) 2013 was conducted for students opting to take this exam by offline mode. The latest changes in admission pattern to premier institutes of India was highly debated, discussed and deliberated. Around 12.85 Lakh students are slated to appear for this exam in offline and online modes

JEE (Main) 2013 was conducted in two parts (Paper 1 and Paper 2). Paper 1 was conducted from 9:30 AM to 12:30 PM and Paper 2 was conducted from 2:30 PM to 5:30 PM.

Paper 1 was for students vying for engineering seats in Engineering colleges, while paper 2 was for students willing for B. Arch degrees

The Analysis below pertains to only Paper 1, which was for Engineering Aspirants.

OVERALL MARKS DISTRIBUTION

Subject	Class 11		Class 12		Total	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Chemistry	12	48	18	72	30	120
Mathematics	16	64	14	56	30	120
Physics	12	48	18	72	30	120
Grand Total	40	160	50	200		

OVERALL DIFFICULTY LEVEL ANALYSIS

In this analysis we have rated every question on a scale of 1 to 3. The ratings are done by expert faculty of Resonance. The individual ratings are then averaged to calculate over all difficulty level.

- 1: Easy
- 2: Moderate
- 3: Difficult

Subject	Difficulty Level
Chemistry	1.77
Mathematics	1.63
Physics	2.10
Overall Average	1.83



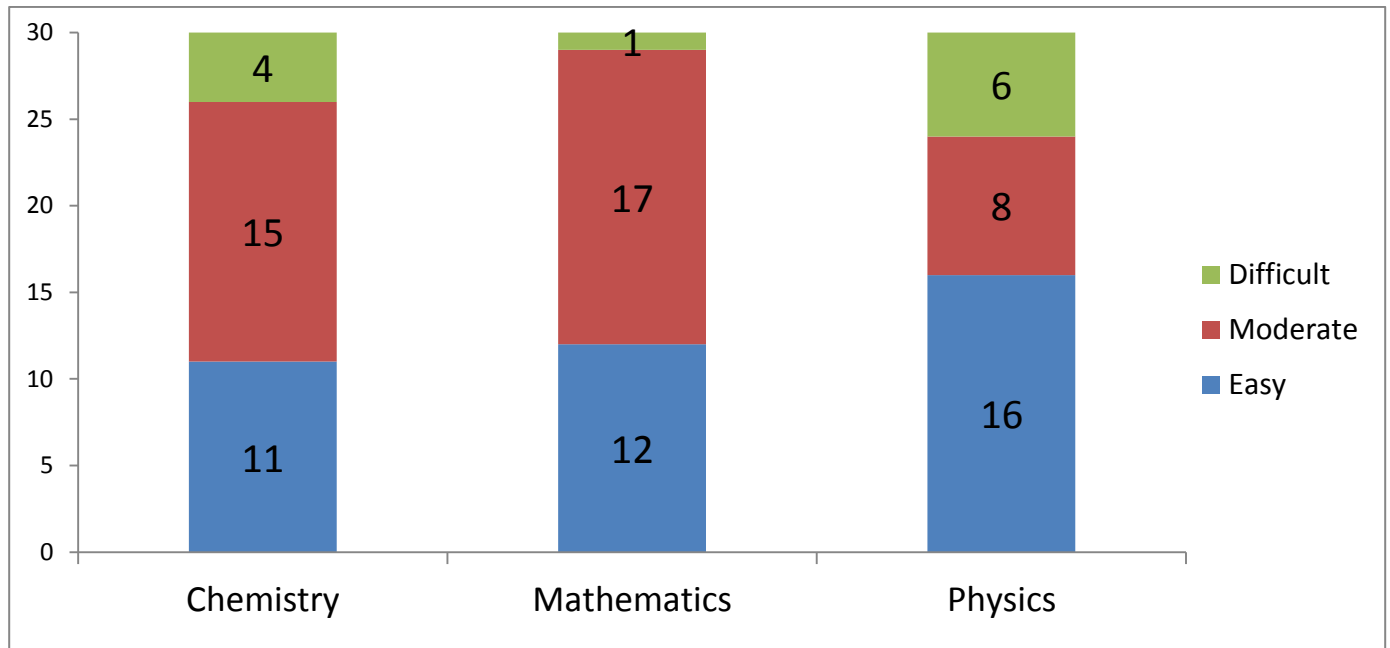
Difficulty Level Analysis: No of Questions

Subject	Easy Level		Medium Level		Difficult Level	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Chemistry	11	44	15	60	4	16
Mathematics	12	48	17	68	1	4
Physics	16	64	8	32	6	24
Grand Total	39	156	40	160	11	44

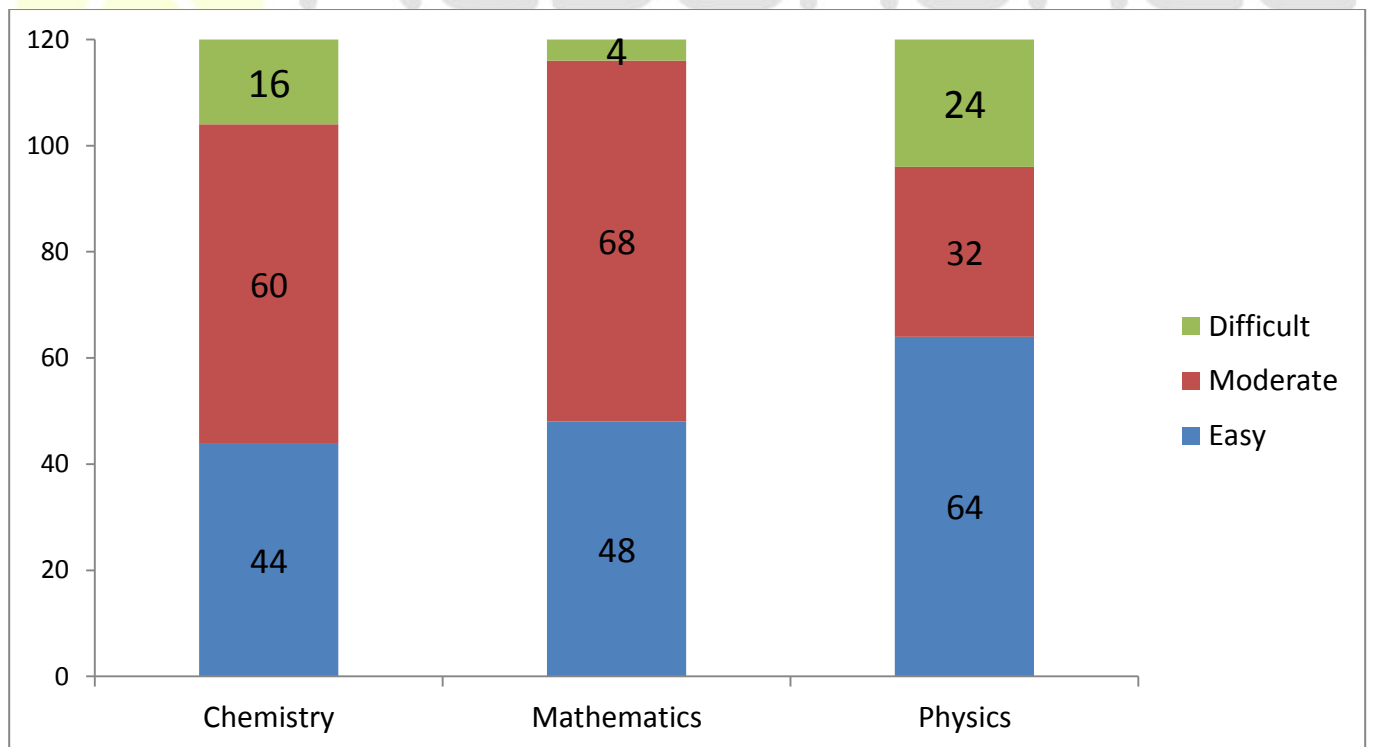
Resonance Experts feel that Physics Paper was more difficult than Chemistry and Mathematics. While around 39 Marks can be considered easy overall, 40 marks are relatively difficulty and 11 marks are considered difficult by Resonance Team.

Overall, it is felt that while paper is moderately difficulty, the cut-off may move up in comparison to previous AIEEE Examinations, since the no of aspirants as gone up and competition is intense because this exam is gateway to JEE (Advanced)

Question Wise Difficulty Breakup



Mark Wise Difficulty Breakup



PHYSICS ANALYSIS

Topic wise Allocation of Marks

Unit & Topic Name	No of Questions	Total Marks	% Weightage
Electrodynamics	9	36	30%
Capacitance	2	8	7%
Current Electricity	2	8	7%
Electro Magnetic Field	1	4	3%
Electro Magnetic Induction	2	8	7%
Electrostatics	2	8	7%
Heat & Thermodynamics	2	8	7%
Heat Transfer	1	4	3%
KTG & Thermodynamics	1	4	3%
Mechanics	7	28	23%
Centre Of Mass	1	4	3%
Fluid Mechanics & Properties of Matter	1	4	3%
Gravitation	1	4	3%
Projectile Motion	1	4	3%
Rigid Body Dynamics	1	4	3%
Surface Tension	1	4	3%
Unit & Dimension	1	4	3%
Modern Physics	5	20	17%
Electromagnetic Waves & Communication	2	8	7%
Modern Physics	2	8	7%
Semiconductors	1	4	3%
Optics	4	16	13%
Geometrical Optics & Physical Optics	2	8	7%
Wave Optics	2	8	7%
SHM & Waves	3	12	10%
SHM	2	8	7%
String Wave	1	4	3%
Grand Total	30	120	100%

CHEMISTRY ANALYSIS
Topic wise Allocation of Marks

Unit & Topic Name	No of Questions	Total Marks	% Weightage
Inorganic Chemistry-I	6	24	20.0%
Chemical Bonding	4	16	13.3%
p-block	1	4	3.3%
Periodic Table & Periodicity in Properties	1	4	3.3%
Inorganic Chemistry-II	3	12	10.0%
d-block & f-block	2	8	6.7%
Transition Elements & Coordination Chemistry	1	4	3.3%
Organic Chemistry-I	3	12	10.0%
General Organic Chemistry- II	3	12	10.0%
Organic Chemistry-II	6	24	20.0%
Alkyl Halide, Alcohol & Ether	1	4	3.3%
Carbohydrates, Amino Acids and Polymers	1	4	3.3%
Carboxylic Acid and their Derivatives	3	12	10.0%
Practical Organic Chemistry	1	4	3.3%
Physical Chemistry-I	8	32	26.7%
Atomic Structure	1	4	3.3%
Gaseous State	2	8	6.7%
Ionic Equilibrium	1	4	3.3%
Mole Concept	2	8	6.7%
Thermodynamics and Thermochemistry	2	8	6.7%
Physical Chemistry-II	4	16	13.3%
Chemical Kinetics	1	4	3.3%
Electrochemistry	1	4	3.3%
Solid State	1	4	3.3%
Surface Chemistry	1	4	3.3%
Grand Total	30	120	100.0%

MATHEMATICS ANALYSIS

Topic wise Allocation of Marks

Unit & Topic Name	No of Questions	Total Marks	% Weightage
Binomial Theorem	1	4	3%
Complex Numbers	1	4	3%
Coordinate Geometry	5	20	17%
Circle	1	4	3%
Ellipse	1	4	3%
Parabola	1	4	3%
Straight Line	2	8	7%
Co-ordinate Geometry (3-D)	2	8	7%
Differential Calculus	4	16	13%
Application of Derivatives	1	4	3%
Differentiation (MOD)	1	4	3%
Limit of function	1	4	3%
Sets & Relation	1	4	3%
Integral Calculus	5	20	17%
Area under curve	1	4	3%
Definite integration	2	8	7%
Differential equation	1	4	3%
Indefinite integration	1	4	3%
Mathematical Reasoning	1	4	3%
Matrix & Determinants	2	8	7%
Permutation & Combination	1	4	3%
Probability	1	4	3%
Quadratic Equation	1	4	3%
Sequence & Series	1	4	3%
Statistics	1	4	3%
Trigonometry	3	12	10%
Inverse Trigonometric function	1	4	3%
Trigonometric Ratio & identities	1	4	3%
Trigonometric equation	1	4	3%
Vector	1	4	3%
Grand Total	30	120	100%