

JEE (Advanced) 2022

28th August, 2022 (Sunday)

(Paper-1: 9:00 am – 12:00 pm | Paper-2: 2:30 pm to 5:30 pm)

A Detailed Paper Analysis by Resonance

After introducing major changes in IIT Admission Process in 2013, on 28-August-2022 (Sunday) JEE Advanced 2022, stage-2 for IIT Admission Process was conducted by IIT Bombay. Top 2.50 Lakh students were eligible through rank in JEE Main 2022, out of which **1.60** Lakh students have filled the JEE Advanced 2022 Exam form.

JEE (Advanced) 2022 were conducted in two parts (Paper 1 & Paper 2) by **IIT Bombay**. Paper 1 was conducted from 9 AM to 12 PM and Paper 2 was conducted from 2:30 PM to 5:30 PM. Only candidates who appear in both Paper 1 and Paper 2 will be considered for ranking. Results will be declared on **Sunday, September 11, 2022** at (jeeadv.ac.in). Category-wise All India Ranks (AIR) of successful candidates will be available on the online portal after the results are declared. The text messages will be sent to the candidates to their registered mobile numbers. The seats across IITs, NITs, IIITs and other Govt. Funded Technical Institutes (GFTIs) will be allocated by the Joint Seat Allocation Authority (JoSAA). All the candidates who are eligible for admission will have to participate in the joint seat allocation process by filling in their choices of the courses. The detailed instructions for filling-in the choices and the seat allotment procedure will be made available by JoSAA through Seat Allotment Brochure (josaa.nic.in).

OVERALL MARKS DISTRIBUTION

The paper pattern was different in comparison to last Year. Each paper had **total of 54 questions**.

In **Paper 1** each subject:

Section 1 had 8 questions of **NUMERICAL VALUE** worth +3 marks each and Zero Marks in all other cases.

Section 2 had 6 questions of **ONE OR MORE THAN ONE** worth +4 marks (with partial marking) each and with -2 negative marking.

Section 3 had 4 questions of **MATCH LIST SETS** i.e. Match List-I to List-II. List-I had 4 questions to be matched to List-II which had 5 options. **ONLY ONE** option is correct. Full marks: +4 in case all options are correct, Zero Marks if none of the options are chosen, -1 negative marking.

In **Paper 2** each subject:

Section 1 had 8 questions of **SINGLE DIGIT INTEGER** type worth +3 marks each and -1 as negative marking.

Section 2 had 6 questions of **ONE OR MORE THAN ONE** type worth +4 marks (with partial marking) each and with -2 negative marking.

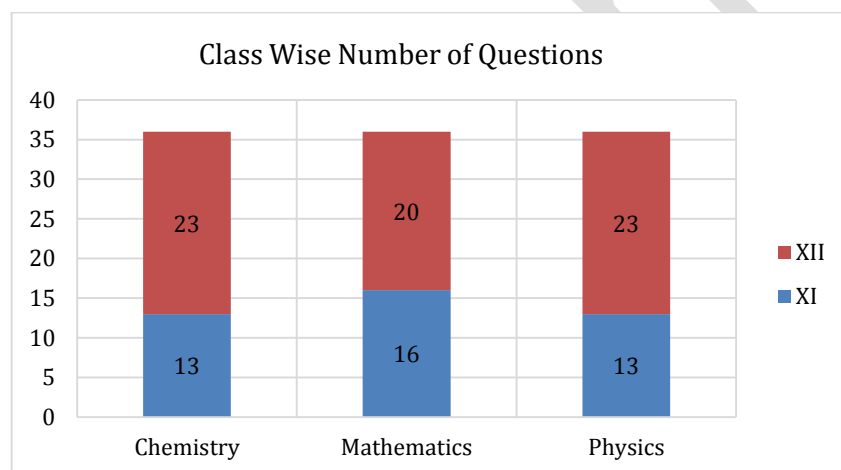
Section 3 had 4 questions of **ONLY ONE** Correct type worth +3 marks each and -1 as negative marking.

Subject wise each subject had 18 questions of 60 marks in total in both Paper 1 and Paper 2.

Both Paper 1 and Paper 2 were of 180 marks each. Total marks for combined Paper 1 and Paper 2 are **360 marks**.

CLASSWISE MARKS DISTRIBUTION

Subject	Class 11		Class 12		Total Percentage	
	No of Questions	Total Marks	No of Questions	Total Marks	Class 11	Class 12
Chemistry	13	43	23	77	36%	64%
Mathematics	16	52	20	68	44%	56%
Physics	13	42	23	78	36%	64%
Grand Total	42	137	66	223	37%	58%

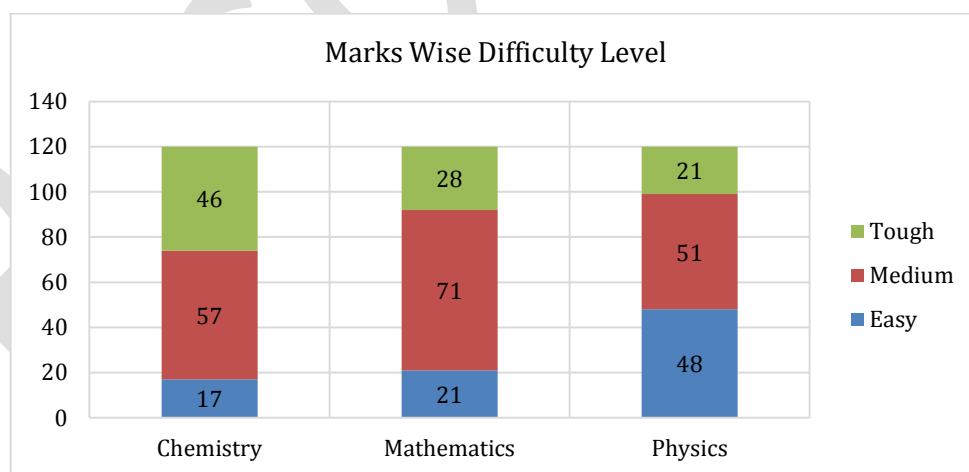
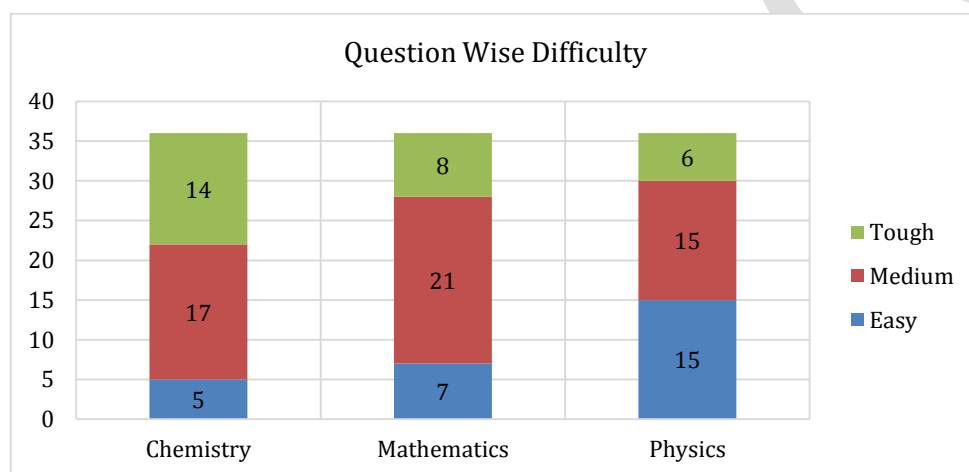


SUBJECT-WISE DIFFICULTY LEVEL ANALYSIS: NO OF QUESTIONS

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 overall difficulty level.

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

Subject	Easy Level		Medium Level		Difficult Level	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Chemistry	5	17	17	57	14	46
Mathematics	7	21	21	71	8	28
Physics	15	48	15	51	6	21
Grand Total	27	86	53	179	28	95



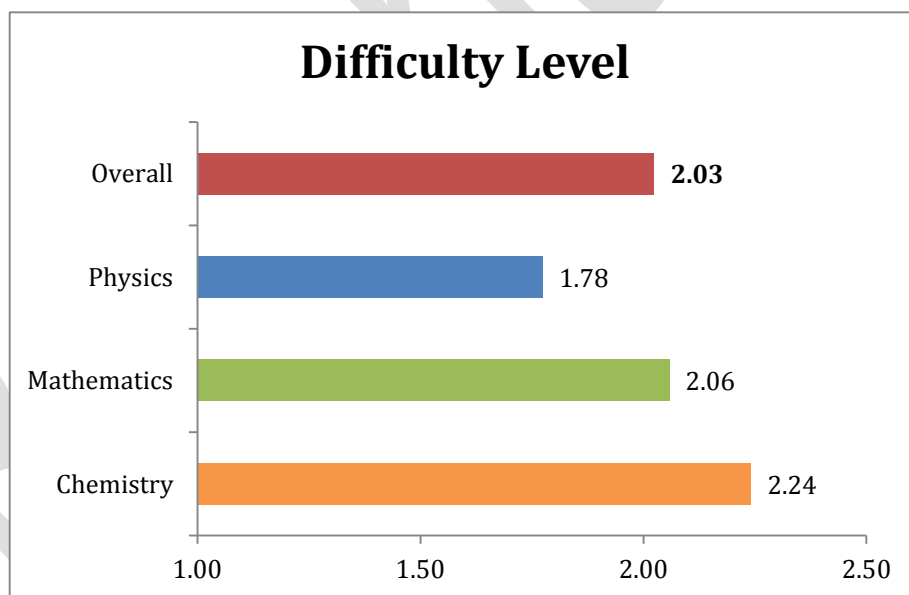
Resonance experts feel that Chemistry and Mathematics paper was on tougher side as compared to Physics. Out of 360 marks, 86 marks paper can be considered of easy level, 179 marks can be considered of medium difficulty level and 95 marks can be considered to be of difficult level by Resonance Team. Overall, difficulty level of paper seemed to be moderate to difficult.

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 overall difficulty level.

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

Subject	Difficulty Level
Chemistry	2.24
Mathematics	2.06
Physics	1.78
Overall	2.03



SUBJECT WISE ANALYSIS

PHYSICS ANALYSIS (TOPIC WISE ALLOCATION OF MARKS)

PHYSICS			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Physics	36	120	100%
Electricity & Magnetism	12	42	35%
Capacitance	2	7	6%
Current Electricity	3	11	9%
Electro Magnetic Field	1	3	3%
Electro Magnetic Induction	2	6	5%
Electrostatics	4	15	13%
Mechanics	10	32	27%
Fluid Mechanics	1	4	3%
Gravitation	1	3	3%
Projectile Motion	1	3	3%
Rigid Body Dynamics	3	9	8%
Simple Harmonic Motion	3	9	8%
Surface Tension	1	4	3%
Modern Physics	4	13	11%
Fission & Fusion	1	3	3%
Mass Defect & Binding Energy	2	7	6%
Photoelectric Effect, de-Broglie wavelength of matter waves	1	3	3%
Optics	6	20	17%
Geometrical Optics	5	16	13%
Wave Optics	1	4	3%
Thermal Physics	2	7	6%
Kinetic Theory of Gases & Thermodynamics	2	7	6%
Unit & Dimensions, Experiment, Measurement & Errors	2	6	5%
Error in Measurement	1	3	3%
Unit & Dimension	1	3	3%

CHEMISTRY ANALYSIS (TOPIC WISE ALLOCATION OF MARKS)

CHEMISTRY			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Chemistry	36	120	100%
Inorganic Chemistry-I	3	11	9%
Chemical Bonding and Molecular Structure	1	4	3%
p-Block Elements (Group 13 & 14)	1	4	3%
s-Block Elements	1	3	3%
Inorganic Chemistry-II	9	29	24%
Coordination Compounds	1	3	3%
d-Block Elements	1	3	3%
Isolation of Metals	2	7	6%
p-Block Elements (Group 17 & 18)	2	6	5%
Principles of Qualitative Analysis	3	10	8%
Organic Chemistry-I	5	16	13%
Alkanes	1	3	3%
Alkenes and Alkynes	2	6	5%
Benzene	1	4	3%
Practical Organic Chemistry	1	3	3%
Organic Chemistry-II	7	25	21%
Alcohols	1	4	3%
Amines	2	6	5%
Biomolecules	1	3	3%
Phenols	2	8	7%
Polymers	1	4	3%
Physical Chemistry-I	5	16	13%
Chemical and Ionic Equilibrium	2	6	5%
Chemical Thermodynamics	1	3	3%
Mole Concept-I	2	7	6%
Physical Chemistry-II	7	23	19%
Chemical Kinetics	1	3	3%
Electrochemistry	3	10	8%
Solid State	1	3	3%
Solutions	1	3	3%
Surface Chemistry	1	4	3%

MATHEMATICS ANALYSIS (TOPIC WISE ALLOCATION OF MARKS)

MATHEMATICS			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Mathematics	36	120	100%
Complex Numbers	3	10	8%
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Coordinate Geometry	4	13	11%
Circle	1	3	3%
Ellipse	1	3	3%
Parabola	1	4	3%
Hyperbola	1	3	3%
Differential Calculus	4	13	11%
Application of Derivatives	1	4	3%
Limit	3	9	8%
Fundamentals of Mathematics	1	3	3%
Fundamentals of Mathematics	1	3	3%
Integral Calculus	5	17	14%
Area under curve	1	3	3%
Definite integration	2	7	6%
Differential equation	2	7	6%
Matrix & Determinants	4	13	11%
Matrices & Determinants	4	13	11%
Permutation & Combination	1	3	3%
Permutation & Combination	1	3	3%
Probability	4	12	10%
Probability	4	12	10%
Trigonometry	4	13	11%
Inverse Trigonometric function	1	3	3%
Solution of Triangle	1	4	3%
Trigonometric Ratio & identities	1	3	3%
Trigonometric equation	1	3	3%
Vector and 3D	3	12	10%
Vector	2	8	7%
Three Dimensional Geometry	1	4	3%
Sequence & Series	3	11	9%
Sequence & Series	3	11	9%