

---

# JEE (Advanced) 2018

## **A Detailed Analysis by Resonance**

After introducing major changes in IIT Admission Process in 2013, on 20-May-2018 (Sunday) JEE Advanced 2018, stage-2 for IIT Admission Process was conducted by IIT Kanpur. Top 2.24 Lakh students were eligible through marks in JEE Main 2018, out of which 1.6 Lakh students have filled the JEE Advanced Exam form.

As earlier IIT-JEE Examinations, JEE (Advanced) 2018 was conducted in two parts (Paper 1 & Paper 2) by IIT Kanpur. Paper 1 was conducted from 9 AM to 12 PM and Paper 2 was conducted from 2 PM to 5 PM.

Only candidates who appear in both Paper 1 and Paper 2 will be considered for ranking. Results will be declared on Sunday, June 10, 2018 10:00 IST. 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.

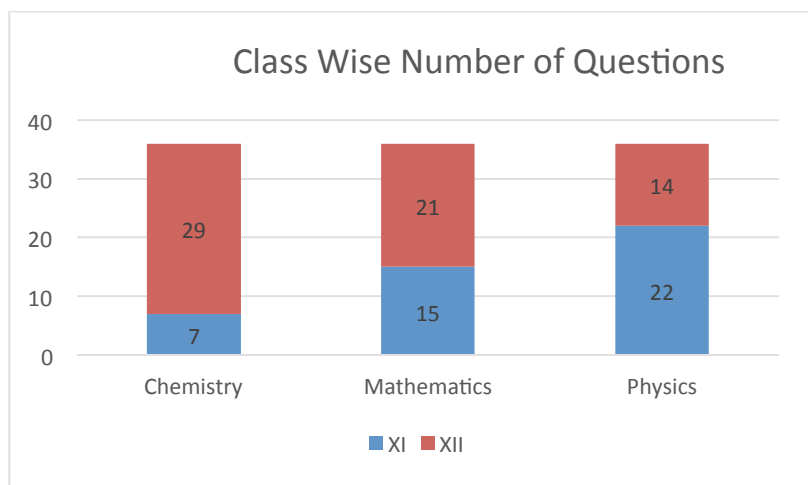
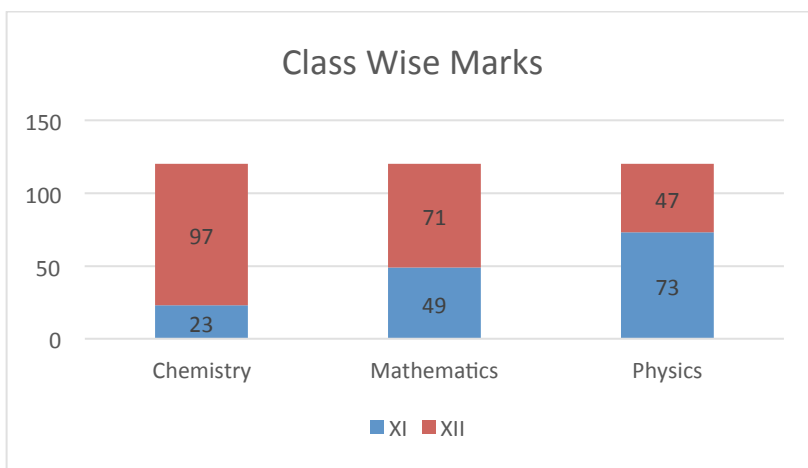
The seats across IITs, NITs, IIITs and other Govt. Funded Technical Institutes (GFTIs) will be allocated by the Joint Seat Allocation Authority (JoSAA). All the candidates who are eligible for admission will have to participate in the joint seat allocation process by filling in their choices of the courses. The detailed instructions for filling-in the choices and the seat allotment procedure will be made available by JoSAA through Seat Allotment Brochure.

### **OVERALL MARKS DISTRIBUTION**

In Paper I & II both, Total **54** Questions were asked. 18 Questions from each subject were asked. Both papers were of 180 marks. Each subject was of 120 marks overall. Total marks for both paper combined were 360.

Total **145 marks** questions were from class **11th syllabus** and **215 marks** questions were **from class 12th** syllabus.

Subject	Class 11		Class 12		Total	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
<b>Chemistry</b>	<b>7</b>	<b>23</b>	<b>29</b>	<b>97</b>	<b>36</b>	<b>120</b>
Paper One	3	10	15	50	18	60
Paper Two	4	13	14	47	18	60
<b>Mathematics</b>	<b>15</b>	<b>49</b>	<b>21</b>	<b>71</b>	<b>36</b>	<b>120</b>
Paper One	10	32	8	28	18	60
Paper Two	5	17	13	43	18	60
<b>Physics</b>	<b>22</b>	<b>73</b>	<b>14</b>	<b>47</b>	<b>36</b>	<b>120</b>
Paper One	13	43	5	17	18	60
Paper Two	9	30	9	30	18	60
<b>Grand Total</b>	<b>44</b>	<b>145</b>	<b>64</b>	<b>215</b>	<b>108</b>	<b>360</b>



### 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 faculties of Resonance. The individual ratings are then averaged to calculate overall difficulty level.

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

#### Difficulty Level Analysis

Subject	Easy Level		Medium Level		Difficult Level	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
<b>Chemistry</b>	5	16	13	44	18	60
<b>Mathematics</b>	13	40	11	36	12	44
<b>Physics</b>	13	44	13	43	10	33
<b>Grand Total</b>	<b>31</b>	<b>100</b>	<b>37</b>	<b>123</b>	<b>40</b>	<b>137</b>

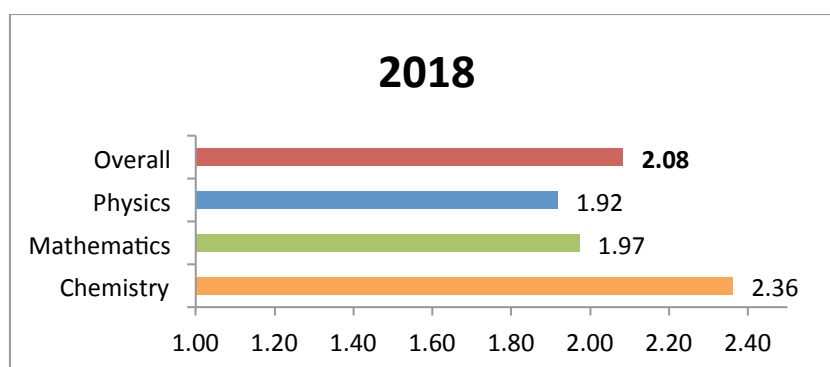
**Physics and Mathematics** were easy compared to **Chemistry**. **Mathematics and Physics** paper was moderately easy, **Chemistry** was considered difficult.

Overall, Resonance experts feel that the paper was relatively tough than the last year. While Chemistry was overall most difficult, Mathematics was considered moderate overall while Physics was relatively easier than the other two subjects.

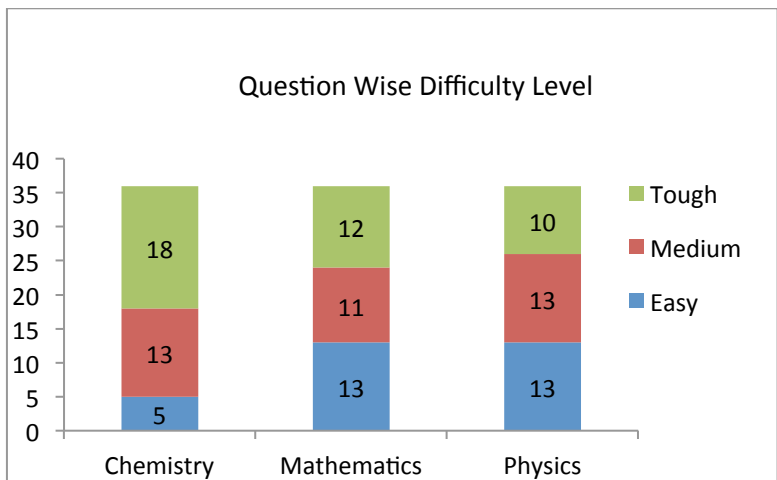
In total, easy questions comprised of **100 marks**, moderate questions comprised of **123 marks** and difficult questions comprised of **137 marks**.

**As the paper was relatively tough than last year**, students are expected to score comparatively less this year.

#### Overall Difficulty

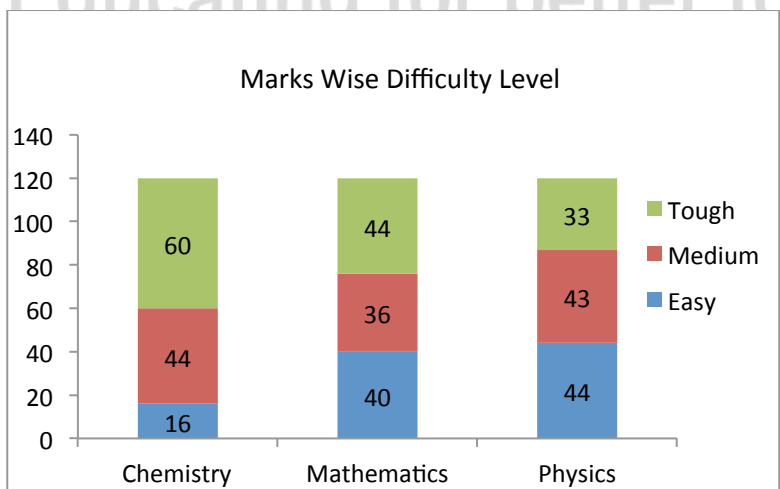


**Question Wise Difficulty Breakup**



Resonance  
Educating for better tomorrow

**Mark Wise Difficulty Breakup**



SUBJECT WISE ANALYSIS
PHYSICS ANALYSIS
**Topic wise Allocation of Marks**

Physics			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
<b>Physics</b>	<b>36</b>	<b>120</b>	<b>100.00%</b>
<b>Electrodynamics</b>	<b>8</b>	<b>27</b>	<b>22.50%</b>
Capacitance	1	3	2.50%
Electro Magnetic Field	2	7	5.83%
Electro Magnetic Induction	1	4	3.33%
Electrostatics	3	10	8.33%
Current Electricity	1	3	2.50%
<b>Heat &amp; Thermodynamics</b>	<b>4</b>	<b>13</b>	<b>10.83%</b>
Heat Transfer	1	3	2.50%
KTG & Thermodynamics	3	10	8.33%
<b>Mechanics</b>	<b>15</b>	<b>50</b>	<b>41.67%</b>
Error in Measurement	3	9	7.50%
Gravitation	1	3	2.50%
Rigid Body Dynamics	3	10	8.33%
Surface Tension	1	4	3.33%
Work, Power & Energy	1	4	3.33%
Elasticity & Viscosity	2	7	5.83%
Unit & Dimension	2	6	5.00%
Circular Motion	1	4	3.33%
Mathematical Tool	1	3	2.50%
<b>Modern Physics</b>	<b>3</b>	<b>10</b>	<b>8.33%</b>
Nuclear Physics	1	4	3.33%
Photoelectric Effect	1	3	2.50%
Bohr Atomic Model	1	3	2.50%
<b>Optics</b>	<b>2</b>	<b>7</b>	<b>5.83%</b>
Geometrical Optics & Physical Optics	2	7	5.83%
<b>SHM &amp; Waves</b>	<b>3</b>	<b>10</b>	<b>8.33%</b>
Sound Waves	2	7	5.83%
SHM	1	3	2.50%
<b>Mathematical Tools</b>	<b>1</b>	<b>3</b>	<b>2.50%</b>
Projectile Motion	1	3	2.50%
<b>Grand Total</b>	<b>36</b>	<b>120</b>	<b>100.00%</b>

CHEMISTRY ANALYSIS
**Topic wise Allocation of Marks**

CHEMISTRY			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
<b>Chemistry</b>	<b>36</b>	<b>120</b>	<b>100.00%</b>
<b>Inorganic Chemistry-I</b>	<b>3</b>	<b>11</b>	<b>9.17%</b>
Chemical Bonding	1	3	2.50%
p-block	2	8	6.67%
<b>Inorganic Chemistry-II</b>	<b>7</b>	<b>24</b>	<b>20.00%</b>
Coordination Compounds	5	17	14.17%
Qualitative Analysis	1	4	3.33%
Metallurgy	1	3	2.50%
<b>Organic Chemistry-II</b>	<b>12</b>	<b>40</b>	<b>33.33%</b>
Aromatic Compounds	3	11	9.17%
Carbonyl compounds	1	3	2.50%
Organic Reaction Mechanism 4	2	6	5.00%
Stereoisomerism	1	3	2.50%
Organic Reaction Mechanism 3	1	4	3.33%
Biomolecules	1	4	3.33%
Carboxylic Acid and their Derivatives	3	9	7.50%
<b>Physical Chemistry-I</b>	<b>7</b>	<b>23</b>	<b>19.17%</b>
Gaseous State	1	3	2.50%
Ionic Equilibrium	2	6	5.00%
Thermodynamics	3	11	9.17%
Equivalent Concept	1	3	2.50%
<b>Physical Chemistry-II</b>	<b>7</b>	<b>22</b>	<b>18.33%</b>
Chemical Kinetics	2	7	5.83%
Electrochemistry	2	6	5.00%
Solid State	1	3	2.50%
Solution & Colligative Properties	2	6	5.00%
<b>Grand Total</b>	<b>36</b>	<b>120</b>	<b>100.00%</b>

**MATHEMATICS ANALYSIS**
**Topic wise Allocation of Marks**

<b>MATHEMATICS</b>			
<b>UNIT &amp; TOPIC NAME</b>	<b>NO OF QUESTIONS</b>	<b>TOTAL MARKS</b>	<b>(%) WEIGHTAGE</b>
<b>Mathematics</b>	<b>36</b>	<b>120</b>	<b>100.00%</b>
<b>Algebra</b>	<b>1</b>	<b>3</b>	<b>2.50%</b>
Binomial Theorem	1	3	2.50%
<b>Complex Numbers</b>	<b>2</b>	<b>8</b>	<b>6.67%</b>
Complex Numbers	2	8	6.67%
<b>Coordinate Geometry</b>	<b>5</b>	<b>17</b>	<b>14.17%</b>
Circle	3	10	8.33%
Hyperbola	1	3	2.50%
Ellipse	1	4	3.33%
<b>Differential Calculus</b>	<b>5</b>	<b>17</b>	<b>14.17%</b>
Functions	2	6	5.00%
Limit, Continuity & Differentiability	1	3	2.50%
Application of Derivatives	1	4	3.33%
Methods of Differentiation	1	4	3.33%
<b>Integral Calculus</b>	<b>8</b>	<b>27</b>	<b>22.50%</b>
Definite integration	3	9	7.50%
Differential equation	5	18	15.00%
<b>Matrix &amp; Determinants</b>	<b>2</b>	<b>7</b>	<b>5.83%</b>
Matrices & Determinants	2	7	5.83%
<b>Permutation &amp; Combination</b>	<b>2</b>	<b>6</b>	<b>5.00%</b>
Permutation & Combination	2	6	5.00%
<b>Probability</b>	<b>2</b>	<b>6</b>	<b>5.00%</b>
Probability	2	6	5.00%
<b>Sequence &amp; Series</b>	<b>1</b>	<b>3</b>	<b>2.50%</b>
Sequence & Series	1	3	2.50%
<b>Trigonometry</b>	<b>3</b>	<b>10</b>	<b>8.33%</b>
Solution of Triangle	1	4	3.33%
Inverse Trigonometric function	1	3	2.50%
Trigonometric Ratio & identities	1	3	2.50%
<b>Vector and 3D</b>	<b>4</b>	<b>13</b>	<b>10.83%</b>
Vector	4	13	10.83%
<b>Fundamentals of Mathematics</b>	<b>1</b>	<b>3</b>	<b>2.50%</b>
Fundamentals of Mathematics	1	3	2.50%
<b>Grand Total</b>	<b>36</b>	<b>120</b>	<b>100.00%</b>

**EXPECTED - CUTOFF**

<b>JEE (Advanced) 2018: Expected Cut-off</b>			
<b>Category</b>	<b>% Reservation</b>	<b>Cut-off Marks*</b>	<b>% Cutoff</b>
<b>General</b>	50.50%	126	35.00%
<b>OBC</b>	27.00%	113	31.50%
<b>SC</b>	15.00%	63	17.50%
<b>ST</b>	7.50%	63	17.50%
<b>Total</b>	<b>100.00%</b>		

<b>JEE (Advanced) 2017: Official Cut-off</b>			
<b>Category</b>	<b>% Reservation</b>	<b>Cut-off Marks</b>	<b>% Cutoff</b>
<b>General</b>	50.50%	128	35.00%
<b>OBC</b>	27.00%	115	31.50%
<b>SC</b>	15.00%	64	17.50%
<b>ST</b>	7.50%	64	17.50%
<b>Total</b>	<b>100.00%</b>		



EPILOGUE

**CATEGORY-WISE RANK SCORE (ESTIMATED FOR 2018):**

a) General:

Year	Rank (→)	1	10	50	100	500	1000	2500	5000	7500	10000
2018*	Marks (Out of 360)	324	310	285	273	255	240	216	193	177	166
	%	90	86	79	75	71	66	60	53	49	46

b) OBC:

Year	Rank (→)	1	100	500	1000	2500
2018*	Marks (Out of 360)	324	245	209	185	154
	%	90	68	58	51	42

