

## **JEE Main 2021 (July/3rd Attempt)**

***27<sup>th</sup> July, 1<sup>st</sup> Shift (9:00 AM – 12:00 PM)***

### **A Detailed Analysis by Resonance (Memory Based)**

**Disclaimer:** Although students had to answer only 75 questions in exam, Analysis below pertains to all the 90 Questions

JEE Main 2021 exam is being conducted entirely in the computer-based mode except that the Drawing Test for B.Arch. was held in "Pen & Paper" (offline) mode and by National Testing Agency (NTA).

A total of 7,09,519 candidates have registered for the JEE Main 2021 (July/3rd session) exam. This amount of registration is making JEE Main 2021 one of the biggest computer based competitive exams for undergraduate admissions.

This year NTA has announced four sessions for JEE Main 2021 exam instead of two. The Paper 1 exam was held in February, March and after postponement it is now happening in July and August-Sep. However, Paper 2A and Paper 2B (B. Arch & B. Planning) will be held only twice a year (February & August-Sep. 2021).

In July session B. Arch (Paper 2a) /B. Planning (Paper 2b) was not conducted. JEE Main Exam will be on 20<sup>th</sup>, 22<sup>nd</sup>, 25<sup>th</sup> & 27<sup>th</sup> July, Engg. (B.E./B.Tech.) Paper 1 are being conducted in two shifts: First Shift – 9:00AM to 12:00PM & Second Shift – 3:00PM to 6:00PM daily.

This year NTA result will consist of four NTA Scores, for each of the three subjects (Mathematics, Physics, Chemistry) and the total in Paper-1 of JEE (Main)–2021 for the July Session. These NTA scores will be calculated in terms of "Normalization procedure based on Percentile Score".

The analysis below pertains to only "Paper 1" of JEE Main 2021 catering engineering aspirants.

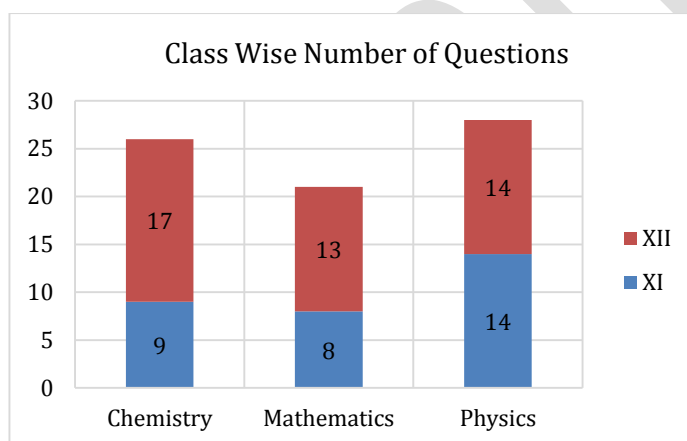
#### **OVERALL MARKS DISTRIBUTION**

As per new paper pattern, JEE Main 2021 Paper 1 had 90 questions each worth 4 marks. There was 30 questions in each PCM Subject, 20 questions of single choice type & 10 questions of numerical value answer type out of which 5 questions need to be answered.

Hence, subject-wise each subject had 25 questions of 100 marks in total. For each incorrect response, 1 mark was deducted from the total score. There was no negative marking for numerical value answer type of questions.

Although, it is memory based questions analysis resonance experts could figure out **75** out of 90 questions. We could find **28** questions in physics, **21** in mathematics and **26** in chemistry.

Subject	Class 11		Class 12		Total Percentage	
	No of Questions	Total Marks	No of Questions	Total Marks	Class 11	Class 12
<b>Chemistry</b>	9	36	17	68	30%	57%
<b>Mathematics</b>	8	32	13	52	27%	43%
<b>Physics</b>	14	56	14	56	47%	47%
<b>Grand Total</b>	<b>31</b>	<b>124</b>	<b>44</b>	<b>176</b>	<b>34%</b>	<b>49%</b>

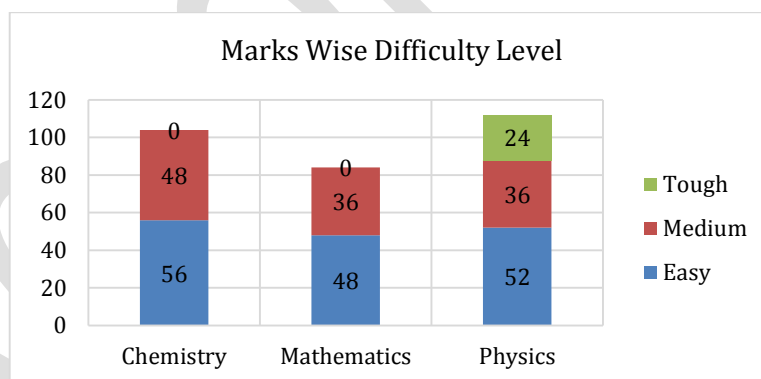
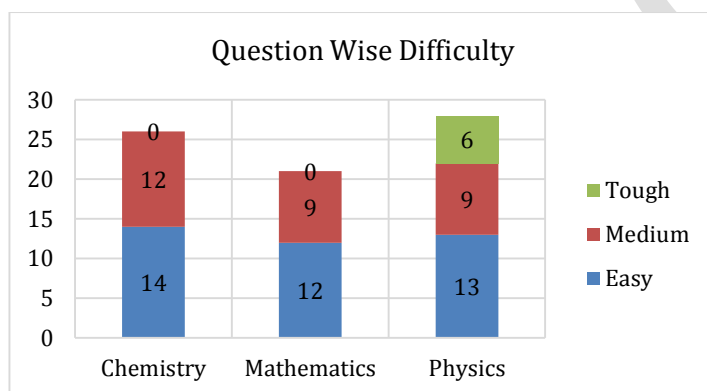


### SUBJECT-WISE DIFFICULTY LEVEL ANALYSIS: NO OF QUESTIONS

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
<b>Chemistry</b>	14	56	12	48	0	0
<b>Mathematics</b>	12	48	9	36	0	0
<b>Physics</b>	13	52	9	36	6	24
<b>Grand Total</b>	<b>39</b>	<b>156</b>	<b>30</b>	<b>120</b>	<b>6</b>	<b>24</b>



Resonance experts feel that Chemistry and physics were on tougher side compare to that of Maths paper. Out of 300 marks (\*for 75 questions), 156 marks paper can be considered of easy level, 120 marks can be considered of medium difficulty level and 24 marks can be considered to be of difficult level by Resonance Team.

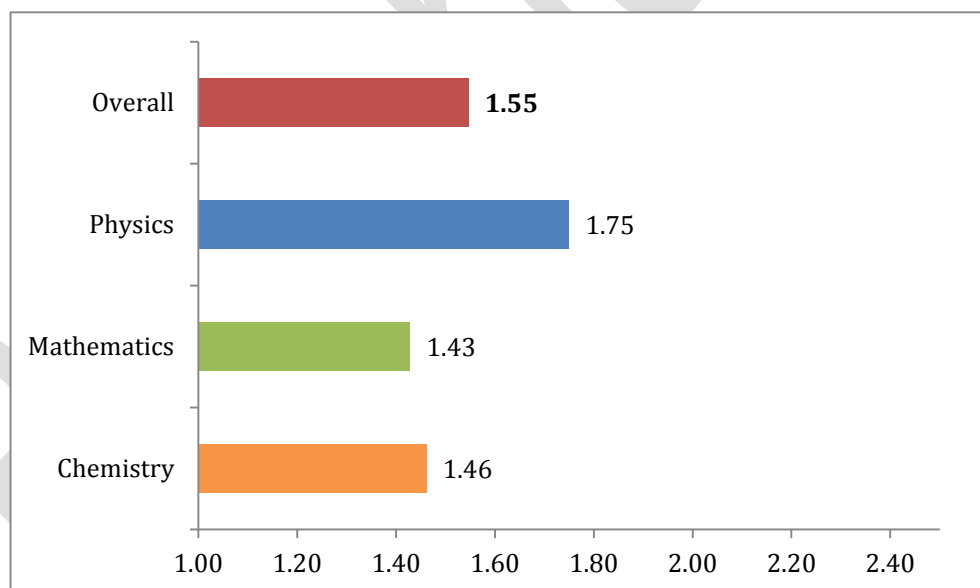
Overall, difficulty level of paper seemed to be Moderate.

## 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	1.46
Mathematics	1.43
Physics	1.75
<b>Overall</b>	<b>1.55</b>



## PHYSICS ANALYSIS

PHYSICS			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
<b>Physics</b>	<b>28</b>	<b>112</b>	<b>93%</b>
<b>Electrodynamics</b>	<b>9</b>	<b>36</b>	<b>30%</b>
Alternating Current	1	4	3%
Capacitance	3	12	10%
Current Electricity	2	8	7%
Electro Magnetic Field	1	4	3%
Electro Magnetic Induction	1	4	3%
Electrostatics	1	4	3%
<b>Heat &amp; Thermodynamics</b>	<b>3</b>	<b>12</b>	<b>10%</b>
Heat Transfer	1	4	3%
KTG & Thermodynamics	2	8	7%
<b>Mechanics</b>	<b>10</b>	<b>40</b>	<b>33%</b>
Centre of Mass	1	4	3%
Elasticity & Viscosity	1	4	3%
Error in Measurement	1	4	3%
Fluid Mechanics & Properties of Matter	1	4	3%
Gravitation	1	4	3%
Rectilinear Motion & Vectors	1	4	3%
Rigid Body Dynamics	3	12	10%
Projectile Motion	1	4	3%
<b>Modern Physics</b>	<b>2</b>	<b>8</b>	<b>7%</b>
Modern Physics	1	4	3%
Nuclear Physics	1	4	3%
<b>Optics</b>	<b>3</b>	<b>12</b>	<b>10%</b>
Geometrical Optics & Physical Optics	1	4	3%
Wave Optics	2	8	7%
<b>SHM &amp; Waves</b>	<b>1</b>	<b>4</b>	<b>3%</b>
SHM	1	4	3%

## CHEMISTRY ANALYSIS

CHEMISTRY			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
<b>Chemistry</b>	<b>26</b>	<b>104</b>	<b>87%</b>
<b>Inorganic Chemistry-I</b>	<b>3</b>	<b>12</b>	<b>10%</b>
Chemical Bonding	2	8	7%
Periodic Table & Periodicity in Properties	1	4	3%
<b>Inorganic Chemistry-II</b>	<b>3</b>	<b>12</b>	<b>10%</b>
Metallurgy	2	8	7%
p-Block 17-18 Group	1	4	3%
<b>Organic Chemistry-I</b>	<b>1</b>	<b>4</b>	<b>3%</b>
General Organic Chemistry-I	1	4	3%
<b>Organic Chemistry-II</b>	<b>11</b>	<b>44</b>	<b>37%</b>
Amines	2	8	7%
Biomolecules	2	8	7%
Chemistry in Everyday Life	3	12	10%
Grignard Reagent, Reduction, Oxidation & Hydrolysis	1	4	3%
Hydrocarbon (Alkane, Alkene & Alkyne)	1	4	3%
Carbohydrates, Amino Acids and Polymers	1	4	3%
Stereoisomerism	1	4	3%
<b>Physical Chemistry-I</b>	<b>4</b>	<b>16</b>	<b>13%</b>
Atomic Structure & Nuclear Chemistry	1	4	3%
Chemical Equilibrium	1	4	3%
Introduction to Chemistry	2	8	7%
<b>Physical Chemistry-II</b>	<b>4</b>	<b>16</b>	<b>13%</b>
Chemical Kinetics	1	4	3%
Solution & Colligative Properties	2	8	7%
Surface Chemistry	1	4	3%

## MATHEMATICS ANALYSIS

MATHEMATICS			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
<b>Maths</b>	<b>21</b>	<b>84</b>	<b>70%</b>
Binomial Theorem	1	4	3%
Binomial Theorem	1	4	3%
<b>Complex Numbers</b>	<b>1</b>	<b>4</b>	<b>3%</b>
Complex Numbers	1	4	3%
<b>Coordinate Geometry</b>	<b>2</b>	<b>8</b>	<b>7%</b>
Circle	2	8	7%
<b>Differential Calculus</b>	<b>2</b>	<b>8</b>	<b>7%</b>
Continuity & Derivability	1	4	3%
Limit	1	4	3%
<b>Integral Calculus</b>	<b>6</b>	<b>24</b>	<b>20%</b>
Definite integration	5	20	17%
Differential equation	1	4	3%
<b>Mathematical Reasoning</b>	<b>1</b>	<b>4</b>	<b>3%</b>
Mathematical Reasoning	1	4	3%
<b>Matrix &amp; Determinants</b>	<b>2</b>	<b>8</b>	<b>7%</b>
Matrices & Determinants	2	8	7%
<b>Probability</b>	<b>1</b>	<b>4</b>	<b>3%</b>
Probability	1	4	3%
<b>Quadratic Equation</b>	<b>1</b>	<b>4</b>	<b>3%</b>
Quadratic Equation	1	4	3%
<b>Sequence &amp; Series</b>	<b>1</b>	<b>4</b>	<b>3%</b>
Sequence & Series	1	4	3%
<b>Statistics</b>	<b>1</b>	<b>4</b>	<b>3%</b>
Statistics	1	4	3%
<b>Trigonometry</b>	<b>1</b>	<b>4</b>	<b>3%</b>
Trigonometric Ratio & identities	1	4	3%
<b>Vector and 3D</b>	<b>1</b>	<b>4</b>	<b>3%</b>
Vector	1	4	3%