

## Question-wise & Chapter wise Analysis of JEE Main 2021 Session I

JEE Main February 2021 (Session 1) has been conducted on February 23-26. The exam pattern of JEE Main 2021 has been revised. There are overall 90 Questions in the paper with 30 questions each in physics, chemistry and mathematics. Out of 30 questions in each subject, 20 questions are multiple choice questions (MCQs) and 10 numerical value questions (NVQs). Candidates have to answer any five out of 10 Numeric value questions. Have a look on the table provided.

Physics													
Ch. No.	Chapter Name	Exam Date & Shift (Morning / Evening)											
		24 Feb (M)	LOD	24 Feb (E)	LOD	25 Feb (M)	LOD	25 Feb (E)	LOD	26 Feb (M)	LOD	26 Feb (E)	LOD
1	Physical World, Units and Measurements	1	M	1	M	2	E, M	1	M	1	M	1	M
2	Motion in a Straight Line	1	M	0	0	1	M	1	M	0	0	1	M
3	Motion in a Plane	0	0	0	0	1	M	1N	E	0	0	1	M
4	Laws of Motion	2N	M	0	0	0	0	0	0	3N	M, M, D	1	M
5	Work, Energy and Power	1N	M	1N	E	1N	D	1N	M	1	M	0	0
6	System of Particles and Rotational Motion	1	E	1+1N	M, D	0	0	1	M	2	M	2	M
7	Gravitation	3	M, D, D	1	M	3	E, M, D	1N	M	2	E, D	1N	M
8	Mechanical Properties of Solids	1	D	1N	M	1N	M	0	0	1	M	1	M
9	Mechanical Properties of Fluids	1N	M	0	0	0	0	0	0	0	0	0	0
10	Thermal Properties of Matter	1	M	0	0	1	E	0	0	2	M, D	0	0
11	Thermodynamics	2	M, E	1	D	1N	D	1+1N	M	0	0	1N	D
12	Kinetic Theory	0	0	1+1N	E, M	1+1N	M, D	1	E	1N	M	1+1N	M, D
13	Oscillations	1	A	3	M, M, D	1	E	3	E, M, M	2	M, D	2+2N	E, E, M, M
14	Waves	0	0	1+2N	M	1	M	1N	M	1N	M	1	M
15	Electric Charges and Fields	1	A	1+1N	D, M	1N	M	1+2N	M, M, D	1	D	1	M
16	Electrostatic Potential and Capacitance	1	E	0	0	1	M	1	D	1	M	1N	D
17	Current Electricity	2	E, M	1N	M	2N	M	1N	M	1+1N	E, A	1	M
18	Moving Charges and Magnetism	0	0	0	0	2	M	0	0	0	0	0	0
19	Magnetism and Matter	0	0	1	E	0	0	1	E	0	0	0	0
20	Electromagnetic Induction	0	0	0	0	1N	M	0	0	0	0	1	E
21	Alternating Current	1N	E	1+1N	E, M	1+1N	M, D	1	M	1+1N	M, M	1	M
22	Electromagnetic Waves	1N	M	1+1N	E, M	0	0	1N	M	1N	D	0	0
23	Ray Optics and Optical Instruments	1	E	0	0	1N	E	0	0	1	E	2+1N	E, E, D

24	Wave Optics	1 + 1N	M	1	E	1	M	1	E	1	E	0	0
25	Dual Nature of Radiation and Matter	1	E	2	E, M	1	M	2 + 1N	E, M, M	1	M	1N	M
26	Atoms .	1	E	1	M	0	0	1	M	1	M	1	D
27	Nuclei	0	0	0	0	1	M	0	0	0	0	1	M
28	Semiconductor Electronics :Materials, Devices and Simple Circuits	1 + 2N	E, M, D	3	E,E,M	1	M	3	E, E, M	1 + 1N	M, D	1 + 1N	M, M
29	Communication Systems	1N	M	0	0	1	M	1	E	1N	E	1N	M
LOD - Level of Difficulty		E-Easy			M-Moderate			D-Difficult			N - Numeric		

### Remarks :

- In session I of JEE Main 2021, 1 or 2 question had been asked from every chapter.
- After analysis some important-chapters are– Gravitation, Oscillations, Electric charges and Fields, Current Electricity, Alternating Current, Semiconductor Electronics.
- Numeric value Questions have been asked from almost every chapter except– Units and Measurements, Motion in a straight line, Thermal Properties of Matter, Moving charges and Magnetism, Magnetism and Matter, Atoms and Nuclei.

Chemistry													
Ch.No.	Chapter Name	Exam Date & Shift (Morning / Evening)											
		24 Feb (M)	LOD	24 Feb (E)	LOD	25 Feb (M)	LOD	25 Feb (E)	LOD	26 Feb (M)	LOD	26 Feb (E)	LOD
1	Some Basic Concepts of Chemistry	1N	E	1N	M	1	M	0	0	1N	E	1N	E
2	Structure of atom	1N	M	1	M	1	M	1N	E	1	E	1N	M
3	Classification of Elements and periodicity in properties	1	E	0	0	0	0	0	0	1	E	1	M
4	Chemical Bonding and Molecular structure	1	M	1	E	1 + 1N	E,M	1	M	2	E	1	E
5	States of Matter	0	0	1N	M	1N	M	0	0	1N	M	0	0
6	Thermodynamics	0	0	1N	D	2N	M	1N	M	1N	E	1N	M
7	Equilibrium	2N	E, M	1N	M	1	E	1	M	1N	M	0	0
8	Redox Reactions	1N	M	0	0	0	0	0	0	0	0	0	0
9	Hydrogen	1	E	1	E	1	E	1	M	1	E	2	E,M
10	The s-Block Elements	1N	E	1	M	0	0	1N	E	1	E	0	0
11	The p-Block Elements (gp - 13 & 14)	0	0	0	0	1	E	0	0	1	E	0	0
12	Organic chemistry-Some Basic principles and Techniques	0	0	0	0	1N	M	3	M,M,D	2	E	0	0
13	Hydrocarbons	3	E,M,M	1	E	1	D	0	0	2	E,M	1	E
14	Environmental Chemistry	1	E	1	E	1	E	1	E	1	E		
15	The Solid State	1N	E	0	0	0	0	1N	M	0	0	1N	E
16	Solutions	1N	D	1N	M	1N	M	1N	M	1N	M	1 + 1N	M
17	Electrochemistry	0	0	1N	D	0	0	1N	D	1N	E	1N	M
18	Chemical Kinetics	1N	M	1N	D	1N	M	1N	M	1N	D	1N	D
19	Surface Chemistry	1	E	1	M	1	E	1	E	1N	M	0	0
20	General Principles and processes of Isolation of Elements	3	E,M,M	1	E	1	E	1	E	1	E	2	E

21	The p-block Elements (gp - 15, 16, 17 & 18)	0	0	1N	E	0	0	2	E,M	0	0	2 + 1N	E,M,M
22	The d and f-block Elements	1	E	2	M	2	E,M	1 + 1N	E	2 + 1N	E,M,M	1N	M
23	Coordination Compounds	1N	D	1	M	1	M	2	E,M	1N	E	1N	E
24	Haloalkanes and Haloarenes	1	E	2	E,M	0	0	0	0	0	0	0	0
25	Alcohols, phenols and Ethers	1	M	0	0	2	M	1	M	1	M	1	M
26	Aldehydes, Ketones and Carboxylic acids	0	0	3	E,M,M	2	M	1 + 1N	E,M	1	D	4	E,M,M,M
27	Amines	2	E	1N	E	1	M	2	E,M	1	M	2	E
28	Biomolecules	1	E	0	0	1	E	1	E	1	E	1	E
29	Polymers	1	M	1	E	1	E	0	0	1	E	0	0
30	Chemistry in Everyday Life	0	0	1	M	0	0	0	0	0	0	0	0
31	Analytical Chemistry	2	M,D	2 + 1N	E,M,M	3N	M,M,D	1 + 1N	E	0	0	2	E
<b>LOD - Level of Difficulty</b>		<b>E-Easy</b>			<b>M-Moderate</b>			<b>D-Difficult</b>			<b>N - Numeric</b>		

### Remarks :

- Overall level of questions is from moderate to easy.
- Most of the numeric value questions have been asked from class XII physical chemistry chapters and from analytical chemistry.
- Hydrocarbons, Alcohols, Phenols and ethers, aldehyde, Ketones and carboxylic acids chapter have maximum coverage in Feb 2021 analysis.
- Moderate to easy level questions have been asked from inorganic chemistry chapters.

Mathematics													
Ch. No.	Chapter Name	Exam Date & Shift (Morning / Evening)											
		24 Feb (M)	LOD	24 Feb (E)	LOD	25 Feb (M)	LOD	25 Feb (E)	LOD	26 Feb (M)	LOD	26 Feb (E)	LOD
1	Sets	1N	A									1	M
2	Relations and Functions			1N	A			1	E	1	E	1	D
3	Trigonometric Functions					1	D	1	E	2N	M/E		
4	Principle of Mathematical Induction												
5	Complex Numbers and Quadratic Equations	1+1N	E/A	1N	A	1	D	2	M/M	2N	M/M	3N	D/M/M
6	Linear Inequalities					1	M						
7	Permutations and Combinations	1	M	1+2N	M/M/M	1+1N	M/E	1N	E	1+1N	M/D	2N	M/M
8	Binomial Theorem	1	D	1	M			1N	E	2	D/D		
9	Sequences and Series	1	M	2N	M/M	1+1N	M/M	1	M	1	E	1	D
10	Straight Lines and Pair of Straight Lines	1	D			1	E			1	E	1	E
11	Conic Sections	1+1N	D/M	1+1N	M/E	2+1N	M/E/E	2+1N	M/M/D			1+2N	M/E/M
12	Limits and Derivatives	1N	M			1	D	1N	M	1	M		
13	Mathematical Reasoning	1	M	2	M/M	1	M	2	E/M			1	M
14	Statistics			1N	M							1N	E
15	Probability			1	M	1	M	1	E				
16	Relations and Functions	1	E			1	M	1	E	1	D	1	M

17	Inverse Trigonometric Functions			1	E			1	E	1	M	1	D
18	Matrices	1N	M	1	M			1	E	1	D	1N	M
19	Determinants	1+1N	E/D	1	E	3N	M/E/E	2	E/E	1	M		
20	Continuity and Differentiability	1	M			1+2N	E/M/E	1+1N	E/D			2	M/E
21	Applications of Derivatives	2+1N	M/M/E	3	E/D/E			1N	E	1	E		
22	Integrals	2+1N	E/M/E	2	M/M	2	M/M	2+1N	E/M/M	2+1N	M/M/E	2+1N	M/M/E
23	Applications of Integrals	1	E	1+1N	E/M	1N	E			1N	M	1	M
24	Differential Equations	1	E	2	M/M	1	M	1N	M	1+2N	E/E/M	3	E/E/M
25	Vector Algebra	1N	M			1N	E	1N	E	1	M	1	M
26	Three Dimensional Geometry	2	E/E	2+1N	M/E/E	2	E/M	1+1N	E/M	2+1N	E/E/M	3	E/E/M
27	Probability	1+1N	M/D			1	E	1	E	1	M	1	M
28	Properties of Triangles	1	E	1	E	1	M			1	D	1	D
	<b>TOTAL</b>	30		30		30		30		30		30	
	<b>LOD - Level of Difficulty</b>		<b>E-Easy</b>		<b>M-Moderate</b>		<b>D-Difficult</b>		<b>N - Numeric</b>				

#### Remarks :

- Overall level of questions are easy to moderate.
- Most of numeric value questions have been asked from chapters (Conic Sections, Permutations and combinations, Complex numbers, Integrals, Three dimensional geometry).
- Conic Sections, Permutations and combinations, Complex numbers, Integrals, Differential Equations and Three dimensional geometry have maximum coverage chapters in Feb 2021 JEE MAIN.