

# 2022

Online Training program

## JEE (Paper II) & NATA Entrance Exam

Conducted by College of Engineering, Pune



### Course Curriculum

Sr.No.	Topics		Teaching Hours
	Part A ( Hands-on exercise)	Part B (Based on Aptitude)	
<b>A</b>	<b>Drawing Test</b>		<b>20 Hours</b>
1	Geometric Composition and Shape	Test- Object Interpretation of Pictorial compositions	2
2	Understanding Scale and Proportion of Objects, Building forms and Colour Texture, Harmony, Element, Aesthetics and Contrast	<b>Logical Reasoning</b> – Tests ability to recognise patterns, sequences or relationships between shapes and imagery.	2
3	Conceptualization and Visualization through Structuring Objects in Memory	<b>Test - Situational Judgment</b> – Tests problem-solving ability.	2
4	Sketching of scenes and activities from memory of urban landscape	<b>Test - Situational Judgment</b> – Tests problem-solving ability.	2
5	Drawing of Patterns – Both Geometrical and Abstract	Test - Object Interpretation of Pictorial compositions	2
6	Form Transformation in 2D and 3D like union, Subtraction, Rotation, Surface and Volumes	<b>Test- Visualizing</b> 3-dimensional objects from 2-dimensional drawing	2
7	Creation of 2D and 3D compositions using shape and forms	<b>Test- Visualizing</b> different sides of 3D objects	2
8	Generating Plan, and 3D views, the elevation of objects	<b>Test- Visualizing</b> different sides of 3D objects	2
9	Perspective Drawing	<b>Test- Visualizing</b> 3-dimensional objects from 2-dimensional drawing	2
10	Common day to day life objects such as equipment, furniture, etc. from memory	<b>Test Situational Judgment</b> – Tests problem-solving ability.	2
<b>B</b>	<b>Mathematics Test</b>		<b>17 Hours</b>
1	Permutation and Combination	<b>Test on Numerical Reasoning</b> – mathematical ability through simple problems	1
2	Logarithms		1
3	Matrices		1
4	Coordinate Geometry		1
5	3 Dimensional Coordinate Geometry		1
6	Theory of Calculus		1

Sr.No.	Topics		Teaching Hours
7	Algebra	<b>Test on Numerical Reasoning</b> – mathematical ability through simple problems	1
8	Application of Calculus		1
9	Statistics and Probability		1
10	Sets, Relations and Functions		1
11	Complex Numbers and Quadratic Equations		1
12	Mathematical Inductions		1
13	Binomial Theorem and Its Simple Applications		1
14	Sequence And Series		1
15	Limit, Continuity and Differentiability		1
16	Differential Equations		1
17	Vector Algebra	1	
<b>C</b>	<b>General Aptitude Test</b>		<b>6 Hours</b>
1	Texture related to architecture and built environment	<b>Diagrammatic Reasoning</b> – Tests the ability of logical reasoning, using diagrams and scenarios. <b>Verbal Reasoning</b> – Assesses the ability to assess verbal logic. <b>Abstract Reasoning</b> – Will assess general knowledge, and ability to utilise knowledge in new situations	2
2	Mental ability (visual, numerical and verbal)		2
3	General awareness of national/international architects and famous architectural creations		2
<b>D</b>	<b>JEE - B.Planning</b>		<b>4 Hours</b>
1	General Awareness	Test- Knowledge about prominent cities, development issues, government programmes etc.	1
2	Social Sciences	Economic development- economic sectors, globalisation, the concept of development, poverty; Population structure, social exclusion and inequality, urbanisation, rural development, colonial cities, Power-sharing, federalism, political parties, democracy, the constitution of India Human Settlements	2
3	Thinking Skills	Comprehension (unseen passage); map reading skills, scale, distance, direction, area etc.; Critical reasoning; Understanding of charts, graphs and tables;	1