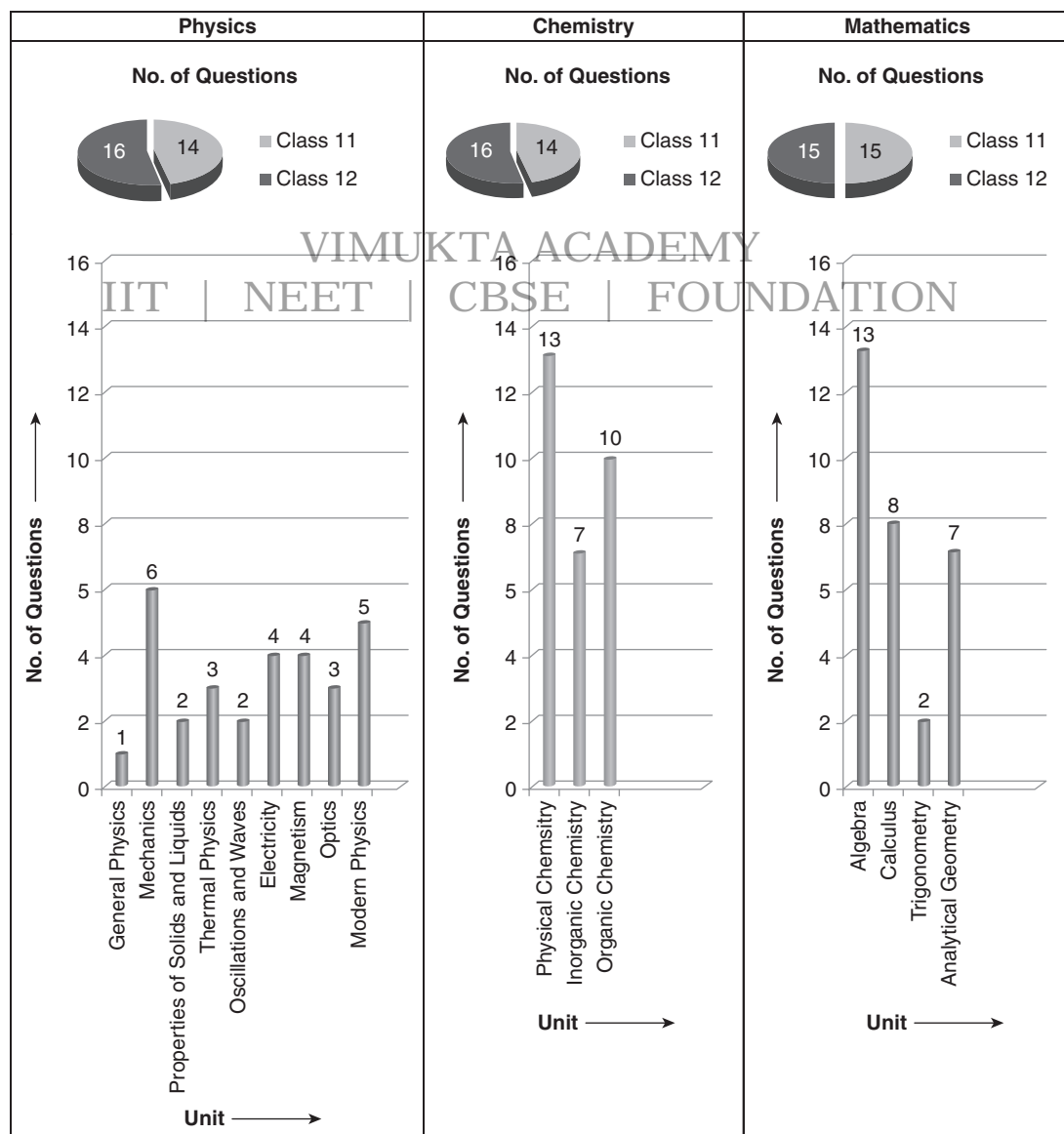


Joint Entrance Examination Main (JEE Main) score is used as an eligibility/merit criteria for admission into Undergraduate Engineering Programs at NITs, IITs and other Center and State (participating) funded Technical Institutions. The JEE (Main) is also an eligibility test for the Joint Entrance Examination Advanced [JEE (Advanced)], which is mandatory for the candidate if he/she is aspiring for admission to the undergraduate program offered by the IITs. The JEE (Advanced) scores are used as an eligibility criteria for admission into IITs.

Hence it becomes very important to get well-versed with the pattern of examination, the level of questions asked and the concept distribution in the examination. This section shows the unit-wise as well as chapter-wise analysis of previous years (2009-2017) and current year (2017) papers. The distribution of questions on Class 11 and Class 12 syllabus is also provided. This will help students focus their preparation on important and frequently asked topics.



## PHYSICS

S.No.	Unit	Class	Chapter	AIEEE 2009	AIEEE 2010	AIEEE 2011	AIEEE 2012	JEE Main 2013	JEE Main 2014 (Offline)	JEE Main 2015 (Offline)	JEE Main 2016 (Offline)	JEE Main 2017 (Offline)	
1		11	Physical World										
2	General Physics	11	Units and Measurements	1	1	1	1	1	1	1	2		
			<b>Total Questions</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	
3	Mechanics	11	Motion in a Straight Line	1	1	1	1	1	1			1	
4		11	Motion in a Plane	1	1	1	1	1	1				
5		11	Laws of Motion		3			1	1	1	1	1	
6		11	Work, Energy and Power	1	3		1	1	1	1	1	1	
7		11	System of Particles and Rotational Motion	1	1	4	1	1	1	2	2	2	
8		11	Gravitation	1			1	1	1	1	1	1	
				<b>Total Questions</b>	<b>5</b>	<b>8</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>7</b>
9		Properties of Solids and Liquids	11	Mechanical Properties of Solids	1					1	1		2
10	11		Mechanical Properties of Fluids		1	2	1	1	3			1	
			<b>Total Questions</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>3</b>	
11	Thermal Physics	11	Thermal Properties of Matter	1			2	1	1	1	2	2	
12		11	Thermodynamics	4	1	2	2	1	1	2	1		
13		11	Kinetic Theory			1						1	
			<b>Total Questions</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>	
14	Oscillations and Waves	11	Oscillations	1		1	1	2	1	1	1	2	
15		11	Waves	2	1	1	1	1	1	1	2	1	
			<b>Total Questions</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	
	<b>TOTAL QUESTIONS FROM CLASS 11</b>			<b>15</b>	<b>12</b>	<b>16</b>	<b>13</b>	<b>12</b>	<b>15</b>	<b>13</b>	<b>13</b>	<b>16</b>	

S.No.	Unit	Class	Chapter	AIEEE 2009	AIEEE 2010	AIEEE 2011	AIEEE 2012	JEE Main 2013	JEE Main 2014 (Offline)	JEE Main 2015 (Offline)	JEE Main 2016 (Offline)	JEE Main 2017 (Offline)
1	Electricity	12	Electric Charges and Fields	2	3	1	1	1		2	1	1
2		12	Electrostatic Potential and Capacitance	1		1	1	2	2	2	1	2
3		12	Current Electricity	1	2	2	2	2	2	2	1	1
			<b>Total Questions</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>4</b>
4	Magnetism	12	Moving Charges and Magnetism	2	1	1	2	1	1	1	1	2
5		12	Magnetism and Matter					1	1		1	
6		12	Electromagnetic Induction	1	2	1	1	2		1		1
7		12	Alternating Current		1					2	1	
8		12	Electromagnetic Waves		1		1		2	1	1	
			<b>Total Questions</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>3</b>
9	Optics	12	Ray Optics and Optical Instruments	2	3	2	2	2	2	3	2	1
10		12	Wave Optics	1		1	1	2	1		1	1
				<b>Total Questions</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>
11	Modern Physics	12	Dual Nature of Radiation and Matter	1	1	1	1	1	1	1	1	2
12		12	Atoms	1			2	1		1		
12		12	Nuclei	1	3		1				1	1
14		12	Semiconductor Electronics: Materials, Devices and Simple Circuits	2	1	1	1	1	2		4	1
15		12	Communication Systems			1	1	2		1	1	1
			<b>Total Questions</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>5</b>
			<b>TOTAL QUESTIONS FROM CLASS 12</b>	<b>15</b>	<b>18</b>	<b>14</b>	<b>17</b>	<b>18</b>	<b>15</b>	<b>17</b>	<b>17</b>	<b>14</b>

## CHEMISTRY

S.No.	Unit	Class	Chapter	AIEEE 2009	AIEEE 2010	AIEEE 2011	AIEEE 2012	JEE Main 2013	JEE Main 2014 (Offline)	JEE Main 2015 (Offline)	JEE Main 2016 (Offline)	JEE Main 2017 (Offline)	
1	Physical Chemistry	11	Some Basic Concepts of Chemistry			1	1	2	1	4		1	
2		11	Structure of Atom	2	2	2	1	1	1	1	1	2	
3		11	Chemical Bonding and Molecular Structure	2		3	3	3	2				1
4		11	States of Matter			1	1	1	2	1	1		
5		11	Thermodynamics	2	3	1	1	1	1	1	2	2	2
6		11	Equilibrium	1	5	1	2	1	1	1		1	1
7		11	Redox Reactions						1				1
			<b>Total Questions</b>	<b>7</b>	<b>11</b>	<b>9</b>	<b>9</b>	<b>11</b>	<b>7</b>	<b>8</b>	<b>4</b>	<b>8</b>	
8	Inorganic Chemistry	11	Classification of Elements and Periodicity	2		1	1	2					
9		11	Hydrogen				1		1	1	1	1	
10		11	The s-Block Elements				1		1	1	1	2	
11		11	Environmental Chemistry								1	1	
				<b>Total Questions</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>2</b>
12	Organic Chemistry	11	Organic Chemistry - Some Basic Principles and Techniques	4	2	2		2	1	1	2	1	
13		11	Hydrocarbons		1	1	2	1	2	1	2	3	
				<b>Total Questions</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>4</b>
	<b>TOTAL QUESTIONS FROM CLASS 11</b>			<b>13</b>	<b>15</b>	<b>13</b>	<b>14</b>	<b>16</b>	<b>12</b>	<b>13</b>	<b>12</b>	<b>14</b>	

S.No.	Unit	Class	Chapter	AIEEE 2009	AIEEE 2010	AIEEE 2011	AIEEE 2012	JEE Main 2013	JEE Main 2014 (Offline)	JEE Main 2015 (Offline)	JEE Main 2016 (Offline)	JEE Main 2017 (Offline)	
1	Physical Chemistry	12	The Solid State	1	2	1	1	2	1	1		1	
2		12	Solutions	2	2	2	1		1		1	1	
3		12	Electrochemistry	1	—	1	1	1	3	1	1	1	
4		12	Chemical Kinetics	1	2	1	1	1		1	1	1	
5		12	Surface Chemistry	1	—	—	1	1	1			1	1
			<b>Total Questions</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>4</b>	<b>5</b>	
6	Inorganic Chemistry	12	General Principles and Processes of Isolation of Elements				1		1		1		
7		12	The <i>p</i> -Block Elements	1		3		3	1	4	3	1	
8		12	The <i>d</i> - and <i>f</i> -block Elements	2	1	1	1		1	1	2	1	
9		12	Coordination Compounds	2	2	2	1	1	1	2	3	2	1
			<b>Total Questions</b>	<b>5</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>3</b>	
10	Organic Chemistry	12	Haloalkanes and Haloarenes		—		2	1	1	1	1	3	
11		12	Alcohols, Phenols and Ethers	2	2	2	1	1	1				
12		12	Aldehydes, Ketones and Carboxylic Acids	2		3	2	2	2	1	1	2	
13		12	Amines		1				1	2	1	1	
14		12	Biomolecules	1	1		2	1	1	1	1	2	1
15		12	Polymers	1	1	1	1	1		1	2	1	1
16	12	Chemistry in Everyday Life						1		1	1	1	
			<b>Total Questions</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>8</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>8</b>	
	<b>TOTAL QUESTIONS FROM CLASS 12</b>			<b>17</b>	<b>15</b>	<b>17</b>	<b>16</b>	<b>14</b>	<b>18</b>	<b>17</b>	<b>18</b>	<b>16</b>	

## MATHEMATICS

S.No.	Unit	Class	Chapter	AIEEE 2009	AIEEE 2010	AIEEE 2011	AIEEE 2012	JEE Main 2013	JEE Main 2014 (Offline)	JEE Main 2015 (Offline)	JEE Main 2016 (Offline)	JEE Main 2017 (Offline)	
1	Algebra	11	Principle of Mathematical Induction										
2		11	Complex Numbers and Quadratic Equations	2	2	2	2	3	3	2	2	1	
3		11	Linear Inequalities										
4		11	Permutations and Combinations	1	1	1	1	1	1	2	1	2	
5		11	Binomial Theorem	1		1	1	1	1			1	
6		11	Sequences and Series	1	2	1	2	1	1	2	2	2	3
7		11	Statistics	2	1	1	1	1	1	1	1	1	1
8		11	Mathematical Reasoning	1	1	1	1	1	1	1		1	
			<b>Total Questions</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>8</b>	<b>7</b>	
9	Calculus	11	Sets	1	1	1	1	1	1	2			
10		11	Limits and Derivatives	1	1	2		2	2	2	2	2	
			<b>Total Questions</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>2</b>	
11	Trigonometry	11	Trigonometric Functions	1	2	1	1	2	2	2	2	2	
				<b>Total Questions</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	
12	Analytical Geometry	11	Conic Sections	2	2	2	3	3	3	4	5	3	
13		11	Introduction to Three-Dimensional Geometry	1			1	1		2			
			<b>Total Questions</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>3</b>	
			<b>TOTAL QUESTIONS FROM CLASS 11</b>	<b>14</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>17</b>	<b>16</b>	<b>19</b>	<b>17</b>	<b>14</b>	

S.No.	Unit	Class	Chapter	AIEEE 2009	AIEEE 2010	AIEEE 2011	AIEEE 2012	JEE Main 2013	JEE Main 2014 (Offline)	JEE Main 2015 (Offline)	JEE Main 2016 (Offline)	JEE Main 2017 (Offline)
1	Algebra	12	Matrices	2	3	2	2	2	2	2	2	3
2		12	Determinants									
3		12	Vector Algebra	1	2	2	2	1	1	1	1	1
4		12	Probability	2	2	2	1	1	1	1	1	2
5		12	Linear Programming									
			<b>Total Questions</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>6</b>
6		12	Relations and Functions	2		1					1	2
7		12	Continuity and Differentiability	1	2	1	2		1	1		
8		12	Application of Derivatives	1	1	1	3	1	2			2
9	Calculus	12	Integrals	1	1	2	2	3	2	2	1	2
10		12	Application of Integrals	1	1	1	1	1	1		1	1
11		12	Differential Equations	1	1	1				1	2	1
				<b>Total Questions</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>5</b>	<b>6</b>	<b>4</b>	<b>5</b>
12	Trigonometry	12	Inverse Trigonometric Functions					1		1	1	
			<b>Total Questions</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>
13	Analytical Geometry	12	Three-Dimensional Geometry	4	4	4	3	3	4	2	3	2
			<b>Total Questions</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>3</b>
	<b>TOTAL QUESTIONS FROM CLASS 12</b>			<b>16</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>13</b>	<b>14</b>	<b>11</b>	<b>13</b>	<b>16</b>

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