

## JEE ADVANCED 2017 PAPER ANALYSIS





## **GENERAL OVERVIEW**

- ❖ JEE Advanced 2017 Exam Date: 21st May 2017
- ❖ Subject: Physics, Chemistry & Mathematics
- Mode Offline. Paper 1: 9.00 AM to 12.00 PM

Paper 2: 2.00 PM TO 5.00 PM

- ❖ Paper 1
- ✓ Duration 3 Hours
- ✓ Total Marks 183 (61 Marks each Subject)
- ✓ Total Questions 54 Questions (18 -Questions from each subject)
- ✓ Paper Pattern -

Section	Question Type	NO. of Ques.	Full Marks	Partial Marks	Negative Marks	Maximum Marks of the Section
1	Multiple Correct Choice Answers	7	+4	+1	-2	28
2	Single Digit Integer Type Answers	5	+3	-	0	15
3	Three Columns Match-Matrix	6	+3		-1	18

❖ Paper – 2

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- ✓ Duration 3 Hours
- ✓ Total Marks 183 (61 Marks each Subject)
- ✓ Total Questions 54 Questions (18-Questions from each subject)
- ✓ Paper Pattern -

Section	Question Type	NO. of Ques.	Full Marks	Partial Marks	Negative Marks	Maximum Marks of the Section
1	Single Correct Choice Answers	7	3	-	-1	21
2	Multiple Correct Choice Answers	7	4	1	-2	28
3	Paragraph Type	4	3	-	0	12

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## **Physics Analysis**



Paper -1		Paper -2		
Topics	Marks	Topics	Marks	
Heat & Thermodynamics	17	Current Electricity	7	
4		Friction	7	
Magnetism	9	Capacitors	6	
		Circular Motion	6	
Electromagnetic Induction + AC	8	Electrostatics	4	
Ray Optics	7	Magnetism	4	
Nay Optics		Optical Instruments	4	
Waves & Sound	7	Rotational Motion	4	
		Wave Optics	4	
Modern Physics	6	Centre of Mass	3	
		Electromagnetic Waves	3	
System of Particles	4	Errors & Experiments	3	
Fluids, Surface Tension, Viscosity	3	Gravitation	3	
Traids, surface relision, viscosity	,	Vectors	3	

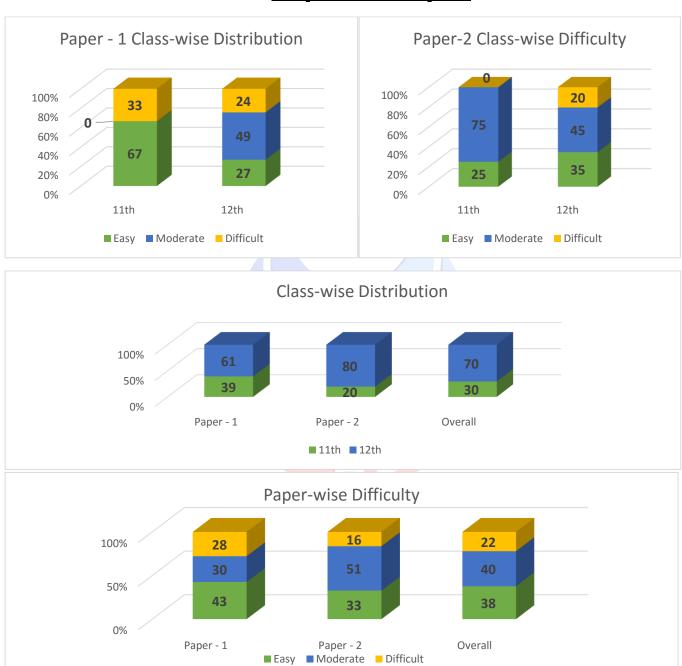
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## **Physics Analysis**



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## RIIT ACADA

## **Chemistry Analysis**

Paper -1		Paper -2		
Topics	Marks	Topics	Marks	
Chemical Bonding	10	P-Block	13	
Atomic Structure	9	Alkyl Halides	4	
Carboxylic Acids & Amines	6	Carbonyl Compounds	4	
Alkenes & Isomerism	4	Chemical Equilibrium	4	
		Chemical Kinetics	4	
Co-ordination & Qualitative Analysis	4	Periodic Properties	4	
Liquid So <mark>lutions</mark>	4	Surface Chemistry	4	
Nomenclature	4	Alcohols & Phenols	3	
P-Block	4	Amines	3	
Thermodynamic	4	Aromatic Compounds	3	
Electrochemistry	3	D-Block	3	
GOC	3	Electrochemistry	3	
Hydrocarbons	3	GOC	3	
		Solutions	3	
Solid State	3	Thermodynamics	3	

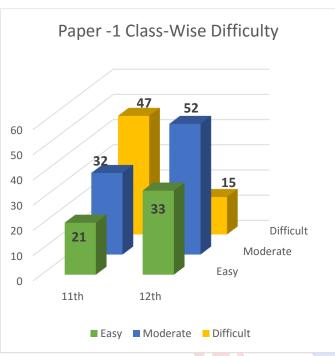
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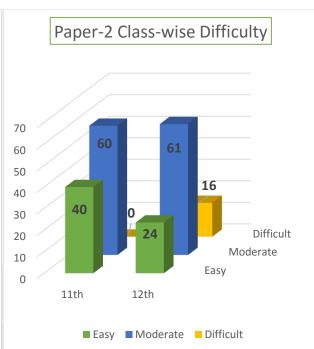
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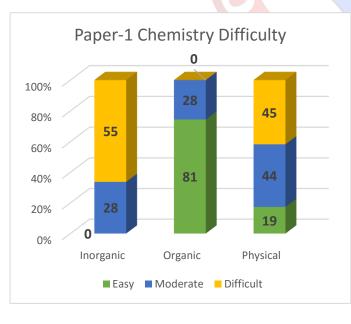
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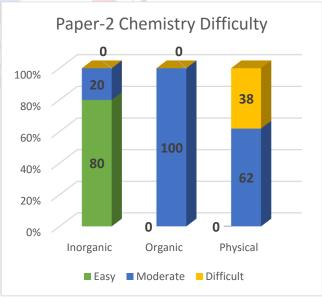


## **Chemistry Analysis**









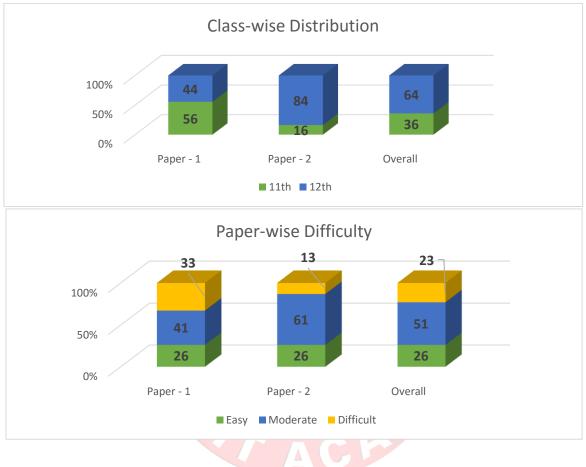
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## **Chemistry Analysis**



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## RITAGARA

## **Mathematics Analysis**

Paper -1			
Topics	Marks		
Conics	17		
Application of Derivatives	9		
Matrices & Determinants	7		
AOD	4		
Complex Numbers	4		
Limits & Differentiability	4		
Probability	4		
Circles	3		
Definite Integration	3		
Permutation & Combination	3		
Sequence & Series	3		

Paper -2				
Topics	Marks			
Vectors	10			
Matrices & Determinants	7			
Application of Derivatives	7			
Quadratic Equations	6			
Differential Equation	4			
Pair of St. Lines	4			
Probability	4			
Permutation & Combination	4			
Area under Curve	3			
Definite Integration	3			
Limit & Differentiablility	3			
Indefinite Integration	3			
Trigonometric Ratio	3			

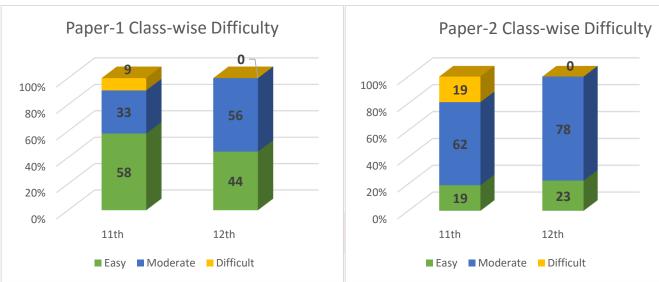
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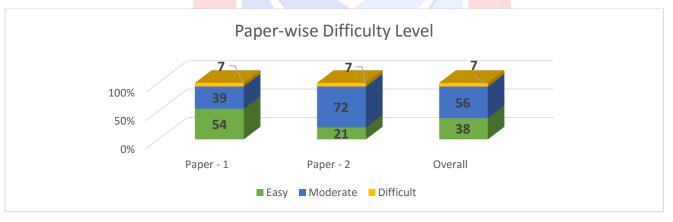
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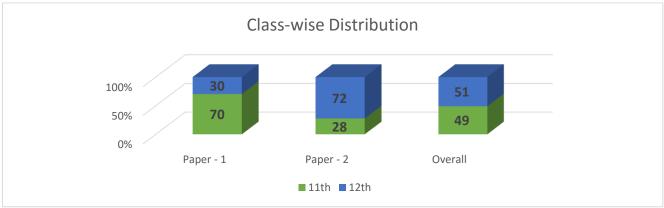
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## **Mathematics Analysis**







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## **Mathematics Analysis**

### Paper 1 -

- More towards Basic concepts in comparison to last year.
- One question from matrices is difficult. Most of the questions are easy and some moderate.
- 3. A new pattern is introduced having 3 columns matching which may be challenging for students in terms of pattern.
- 4. Total 8 questions from 11th and 10th questions form 12th class syllabus.
- Most of the questions are conventional.
- Paper is not lengthy and does not require deeper concepts of subjects.
- 7. Students with consistence hard work have good chance to score well.

### Paper 2 -

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- Paper-2 is as per JEE Standards with few questions easy, mostly moderate and tricky and one question is difficult.
- 2. Mostly questions are from 12<sup>th</sup> class (5 from 11<sup>th</sup> and 13 from 12<sup>th</sup>)
- Paper involved concepts above basics in many questions.
- 4. If we take care of domain, in one question involving concepts of I.T.F. and definite integration, no option is correct.
- 5. Some questions are error prone specially in one or more than one option correct type. Student could have taken benefit of partial scoring by avoiding lengthier options.
- 6. Student need to be conceptually strong & mentally taught to score in this paper.
- Maths was not very lengthy but more time consuming in comparison to paper-1.
- 3. Paper-2 was tougher than paper-1.

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## **Overall Analysis**



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## <u>Overall Analysis</u>

**\$** Expected Cutoff by RAO IIT Faculties and experts is 90 marks i.e. 25%.

## **Expected Rank vs Marks**

Expected Rank	Expected Marks	Marks %
Expected Rank	Expected Marks	Marks %
100	270	74%
300	238	65%
600	204	56%
1000	181	50%
2000	170	46%
3000	164	45%
5000	159	43%
7000	153	42%
Cut-off	90	25%

- Total 366 marks. 2 papers with equal weightage of 61 marks each subject.
- Both papers have partial marking but -2 marks for wrong answers in one section of paper.
- 3. Physics paper -1 is easy but paper -2 is difficult.
- 4. Chemistry- Physical chemistry is of difficult level, inorganic in having unconventional questions and organic is of easy type with 2 questions of moderate difficulty level.
- 5. Mathematics- Paper one is moderate and paper two is
- moderate to difficult.
- 7. Two questions in chemistry and one in mathematics will be bonus.
- 8. Cut off will go up in comparison to last year. 255 plus top 100. 294 plus top 10 and 90 marks will be the cut off in comparison to 75 last years.
- 9. "Students who were not comfortable in paper-2, should not be discouraged as that will be a common phenomenon pan India, Also I expect IITs will reward bonus credits for the 3 questions, 2- chemistry and 1- mathematics, both in paper-2, "

Vinay Kumar MD & CEO RAO IIT ACADEMY

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