

Paper Analysis - JEE (Main) 2017

On 2-April-2017, JEE Main 2017 was conducted for those students who opted to take this exam by offline mode. After major changes introduced in year 2013 by CBSE and Ministry of HRD, this was the fifth edition of the exam. Around 12 Lac students were selected to appear for this exam in offline and online modes both.

These exams were conducted in two parts - Paper 1 and Paper 2. Timings of Paper 1 was from 9:30 am to 12:30 pm and that of Paper 2 for B. Arch. aspirants was from 2 pm to 5 pm. Paper 1 was for those students who applied for seats in engineering colleges, while paper 2 was for those who applied for B. Arch degree.

Here is the analysis of Paper 1 only, which was conducted for engineering students.

Overall Marks Distribution

The paper pattern of JEE Main Paper 1 was same as that of last year. This paper had 90 questions in all, each worth 4 marks. All questions were of objective type with single correct option. If we talk of subject wise each, then each subject had 30 questions of 120 marks in total.

Subject	Class XI no. of Questions	Sum of Marks	Class XII no. of Questions	Sum of Marks	Total Count of Question No.	Total Sum of Marks
Chemistry	14	56	16	64	30	120
Mathematics	13	60	17	60	30	120
Physics	13	52	17	68	30	120
Grand Total	40	160	50	200	90	360

Overall Difficulty Level Analysis

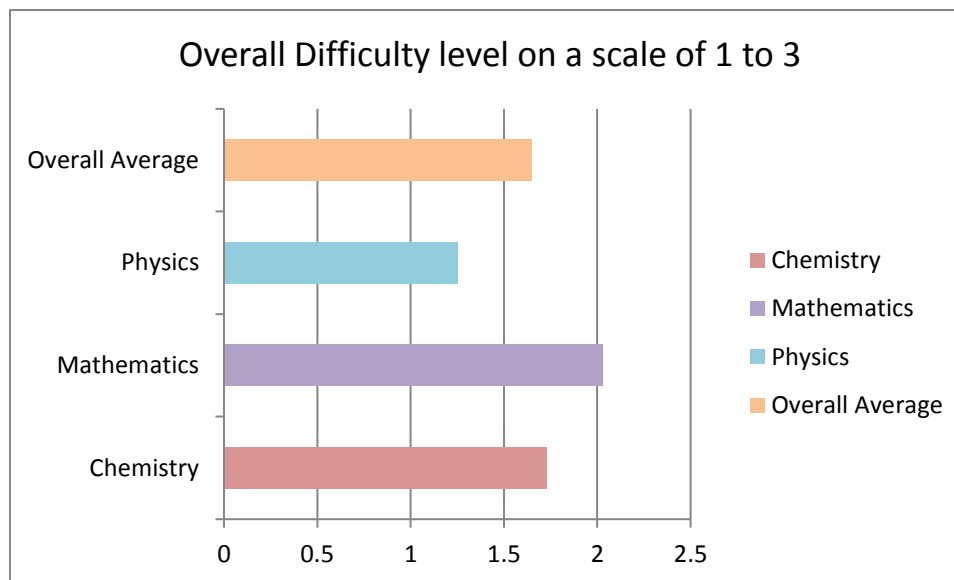
In this analysis, every question is rated on a scale of 1 to 3. The individual ratings are then averaged to calculate overall difficulty level.

1: Easy

2: Moderate

3: Difficult

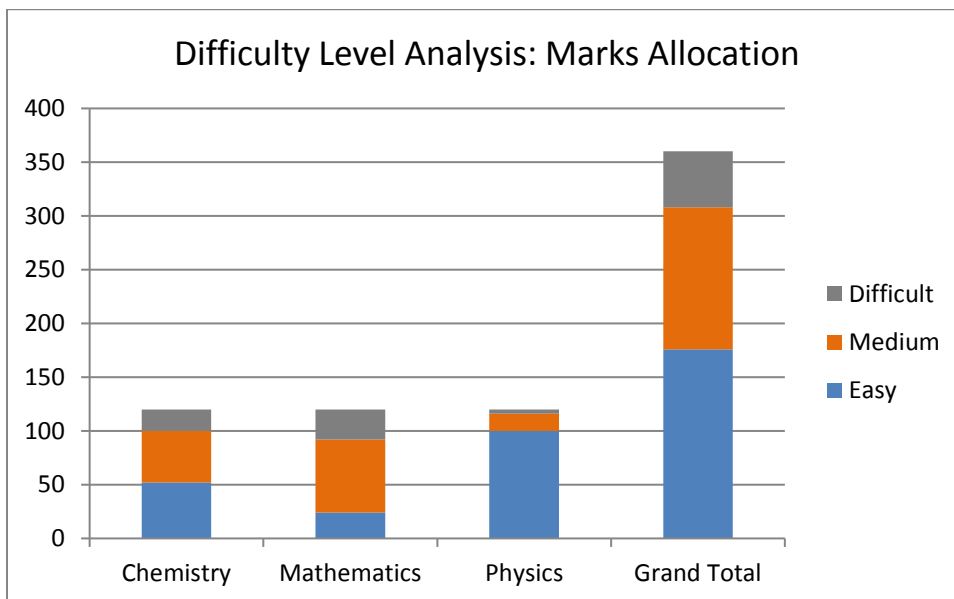
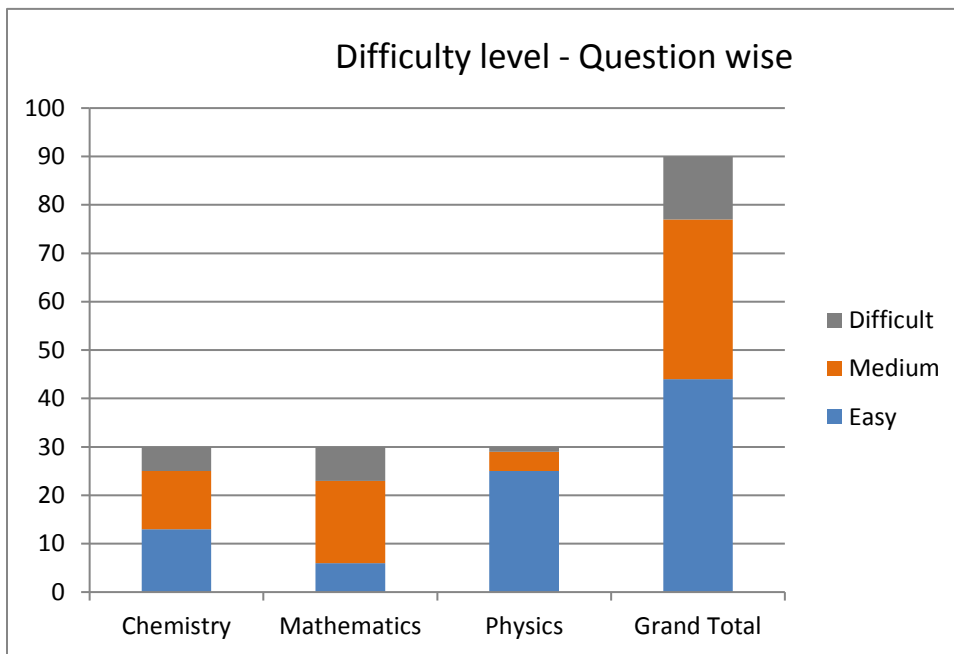
Subject	Difficulty Level
Chemistry	1.73
Mathematics	2.03
Physics	1.25
Overall Average	1.65



Difficulty Level Analysis: Question-wise & Mark-wise

Subject	Easy		Medium		Difficult	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Chemistry	13	52	12	48	5	20
Mathematics	6	24	17	68	7	28
Physics	25	100	4	16	1	4
Grand Total	44	176	33	132	13	52

askITians experts feel that although all subjects had similar difficulty level but mathematics was on tougher side when compared to Chemistry & Physics. Overall, it is felt that while paper was moderate, the cut-off may decrease this year.

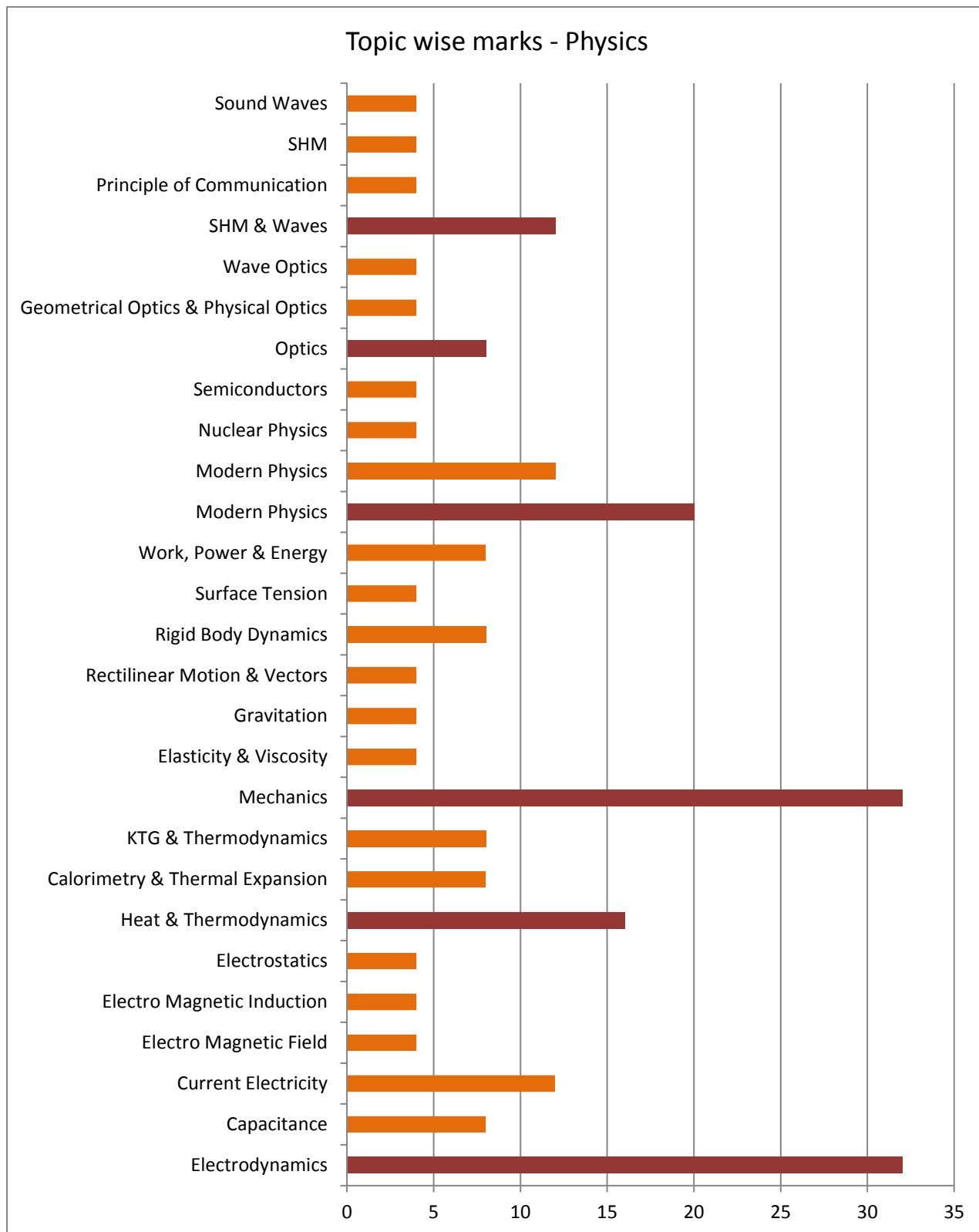


Subject-Wise Analysis

A – Physics

Topic wise allocation of # of Questions & Marks

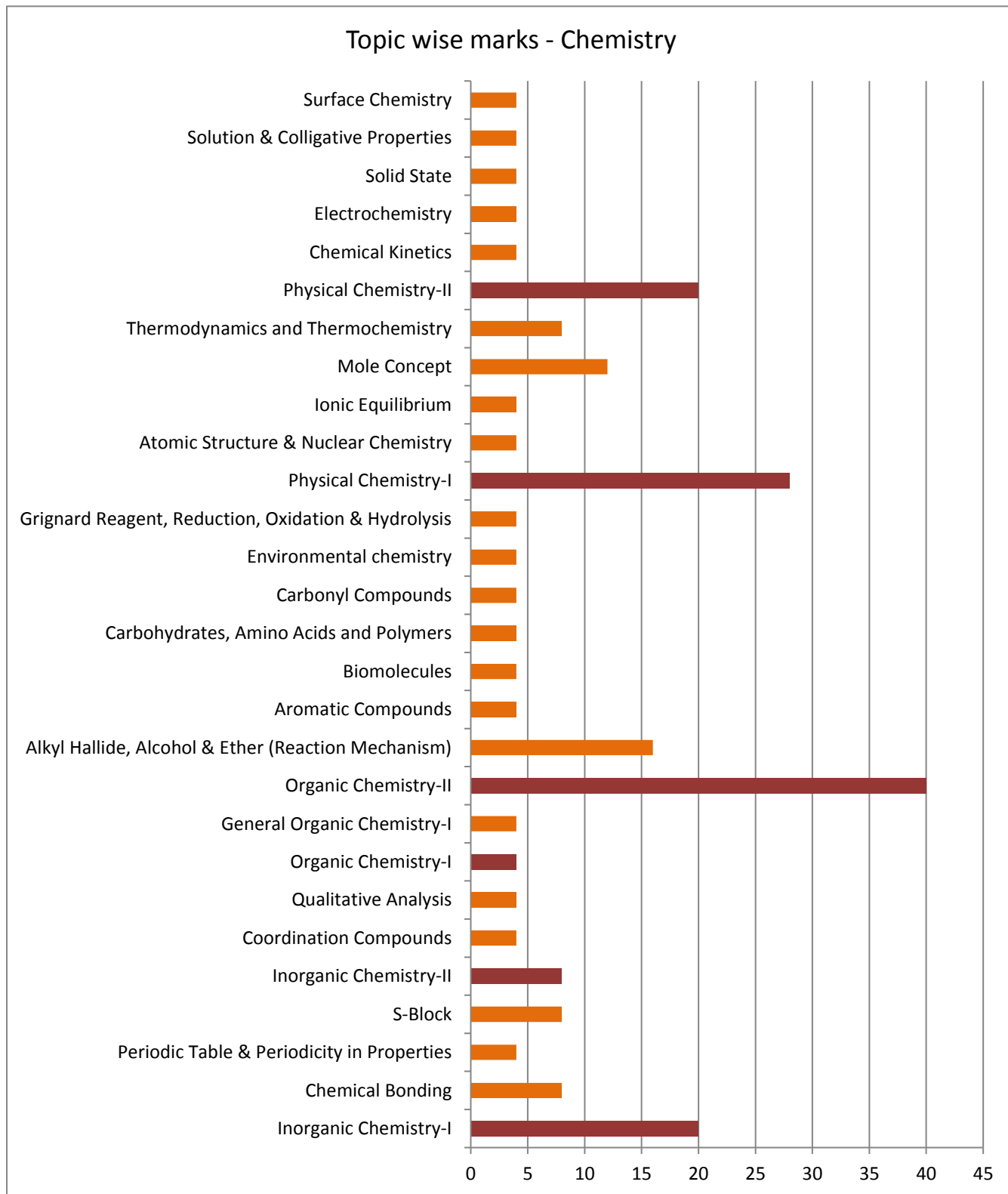
Physics			
UNIT & TOPIC NAME	NO OF QUESTION	TOTAL MARKS	% WEIGHTAGE
Electrodynamics	8	32	26.67%
Capacitance	2	8	6.67%
Current Electricity	3	12	10.00%
Electro Magnetic Field	1	4	3.33%
Electro Magnetic Induction	1	4	3.33%
Electrostatics	1	4	3.33%
Heat & Thermodynamics	4	16	13.33%
Calorimetry & Thermal Expansion	2	8	6.67%
KTG & Thermodynamics	2	8	6.67%
Mechanics	8	32	26.67%
Elasticity & Viscosity	1	4	3.33%
Gravitation	1	4	3.33%
Rectilinear Motion & Vectors	1	4	3.33%
Rigid Body Dynamics	2	8	6.67%
Surface Tension	1	4	3.33%
Work, Power & Energy	2	8	6.67%
Modern Physics	5	20	16.67%
Modern Physics	3	12	10.00%
Nuclear Physics	1	4	3.33%
Semiconductors	1	4	3.33%
Optics	2	8	6.67%
Geometrical Optics & Physical Optics	1	4	3.33%
Wave Optics	1	4	3.33%
SHM & Waves	3	12	10.00%
Principle of Communication	1	4	3.33%
SHM	1	4	3.33%
Sound Waves	1	4	3.33%
Grand Total	30	120	100.00%



B – Chemistry

Topic wise allocation of # of Questions & Marks

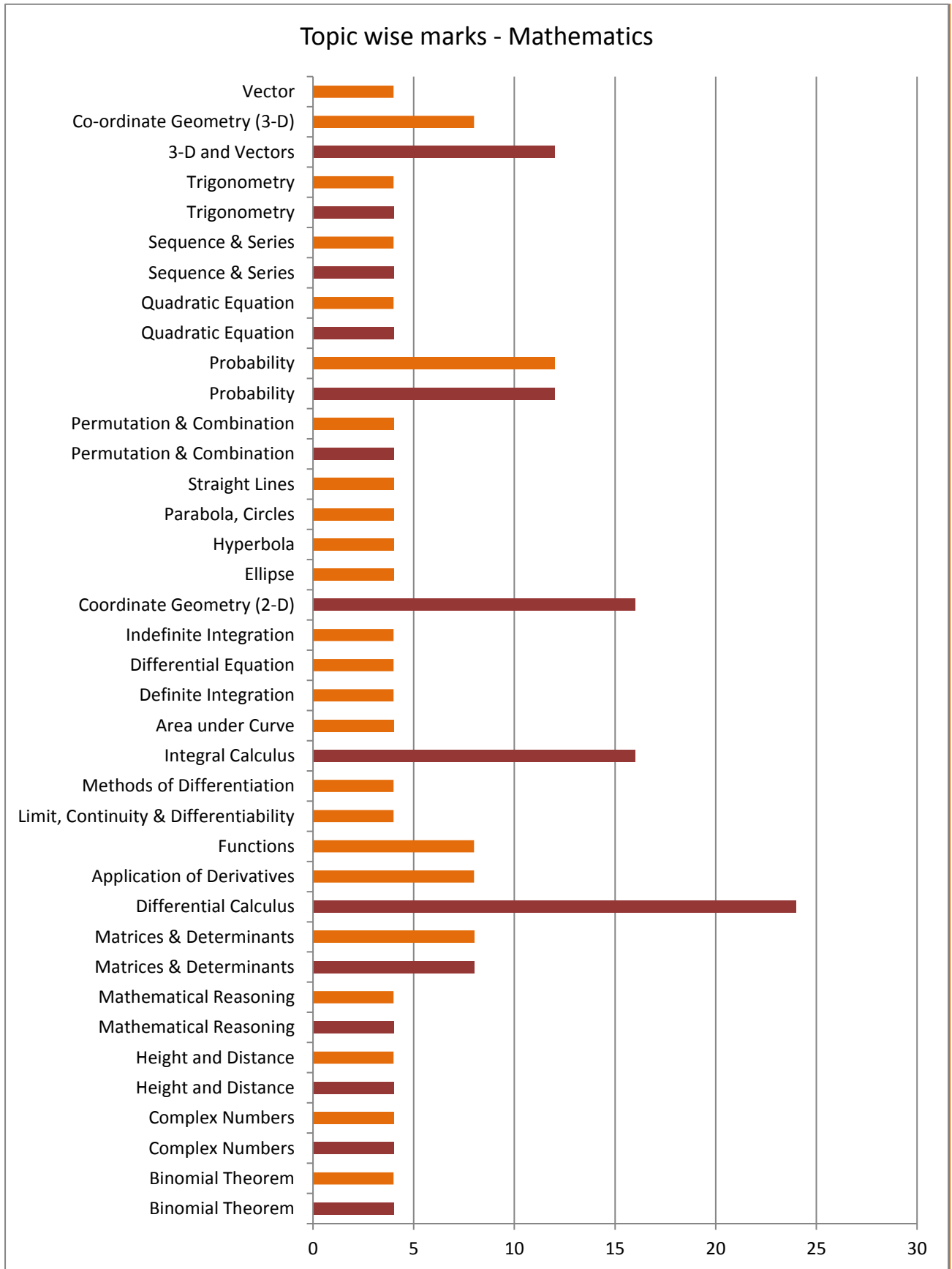
Chemistry			
UNIT & TOPIC NAME	NO OF QUESTION	TOTAL MARKS	% WEIGHTAGE
Inorganic Chemistry-I	5	20	16.67%
Chemical Bonding	2	8	6.67%
Periodic Table & Periodicity in Properties	1	4	3.33%
S-Block	2	8	6.67%
Inorganic Chemistry-II	2	8	6.67%
Coordination Compounds	1	4	3.33%
Qualitative Analysis	1	4	3.33%
Organic Chemistry-I	1	4	3.33%
General Organic Chemistry-I	1	4	3.33%
Organic Chemistry-II	10	40	33.33%
Alkyl Halide, Alcohol & Ether (Reaction Mechanism)	4	16	13.33%
Aromatic Compounds	1	4	3.33%
Biomolecules	1	4	3.33%
Carbohydrates, Amino Acids and Polymers	1	4	3.33%
Carbonyl Compounds	1	4	3.33%
Environmental chemistry	1	4	3.33%
Grignard Reagent, Reduction, Oxidation & Hydrolysis	1	4	3.33%
Physical Chemistry-I	7	28	23.33%
Atomic Structure & Nuclear Chemistry	1	4	3.33%
Ionic Equilibrium	1	4	3.33%
Mole Concept	3	12	10.00%
Thermodynamics and Thermochemistry	2	8	6.67%
Physical Chemistry-II	5	20	16.67%
Chemical Kinetics	1	4	3.33%
Electrochemistry	1	4	3.33%
Solid State	1	4	3.33%
Solution & Colligative Properties	1	4	3.33%
Surface Chemistry	1	4	3.33%
Grand Total	30	120	100.00%



C – Mathematics

Topic wise allocation of # of Questions & Marks

MATHEMATICS			
UNIT & TOPIC NAME	NO OF QUES.	TOTAL	%
Binomial Theorem	1	4	1.67%
Binomial Theorem	1	4	1.67%
Complex Numbers	1	4	1.67%
Complex Numbers	1	4	1.67%
Height and Distance	1	4	1.67%
Height and Distance	1	4	1.67%
Mathematical Reasoning	1	4	1.67%
Mathematical Reasoning	1	4	1.67%
Matrices & Determinants	2	8	3.33%
Matrices & Determinants	2	8	3.33%
Differential Calculus	6	24	10.00%
Application of Derivatives	2	8	3.33%
Functions	2	8	3.33%
Limit, Continuity & Differentiability	1	4	1.67%
Methods of Differentiation	1	4	1.67%
Integral Calculus	4	16	6.67%
Area under Curve	1	4	1.67%
Definite Integration	1	4	1.67%
Differential Equation	1	4	1.67%
Indefinite Integration	1	4	1.67%
Coordinate Geometry (2-D)	4	16	6.67%
Ellipse	1	4	1.67%
Hyperbola	1	4	1.67%
Parabola, Circles	1	4	1.67%
Straight Lines	1	4	1.67%
Permutation & Combination	1	4	1.67%
Permutation & Combination	1	4	1.67%
Probability	3	12	5.00%
Probability	3	12	5.00%
Quadratic Equation	1	4	1.67%
Quadratic Equation	1	4	1.67%
Sequence & Series	1	4	1.67%
Sequence & Series	1	4	1.67%
Trigonometry	1	4	1.67%
Trigonometry	1	4	1.67%
3-D and Vectors	3	12	5.00%
Co-ordinate Geometry (3-D)	2	8	3.33%
Vector	1	4	1.67%
Grand Total	60	240	100.00%



Expected Cutoff

JEE (Main) 2017: Tentative*				
Category	% Reservation	Total Seats	Cut-off Marks	% Cutoff
General	50.50%	1,01,000	100	27.78%
OBC	27.00%	54,000	70	19.44%
SC	15.00%	30,000	52	14.44%
ST	7.50%	15,000	48	13.33%
Total	100.00%	2,00,000		
JEE (Main) 2017: Maximum Marks				360

* The Cut-off of JEE (Main) 2017 is estimated based on previous year data and paper analysis of this year. This is not an official data released by concerned authorities and just an estimation.