

Paper Analysis - JEE (Main) 2018

On 8-April-2018, JEE Main 2018 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 sixth edition of the exam. Around 11.5 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 optional and only for those who applied for B. Arch degree.

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

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, then each subject had 30 questions of 120 marks in total.

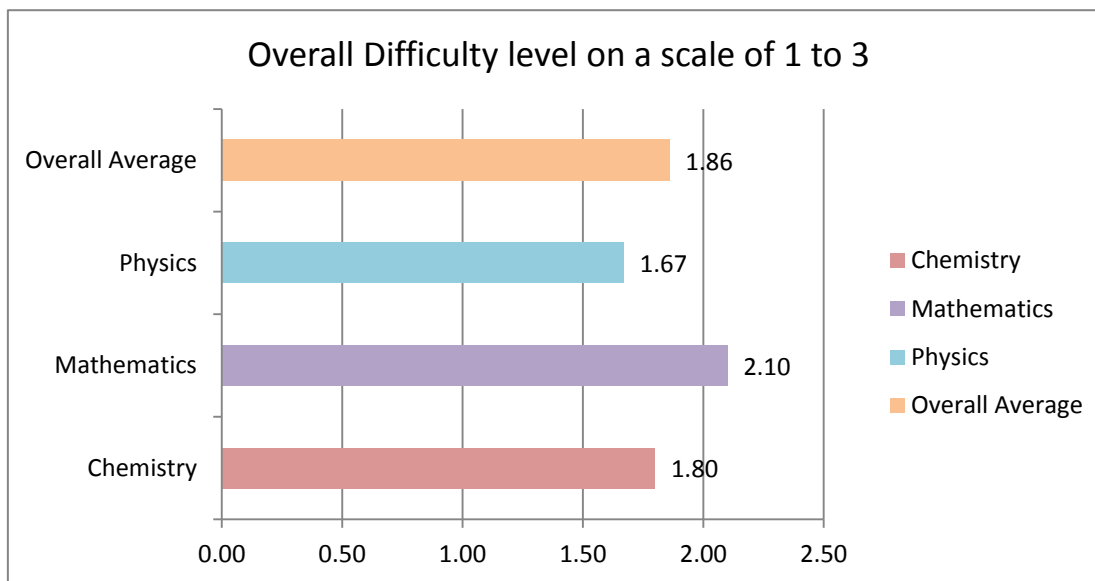
Subject	Class XI		Class XII		Total Percentage	
	No. of ques	Marks	No. of ques	Marks	Class XI	Class XII
Chemistry	13	52	17	68	43%	57%
Mathematics	16	64	14	56	53%	47%
Physics	15	60	15	60	50%	50%
Grand Total	44	176	46	184	49%	51%

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

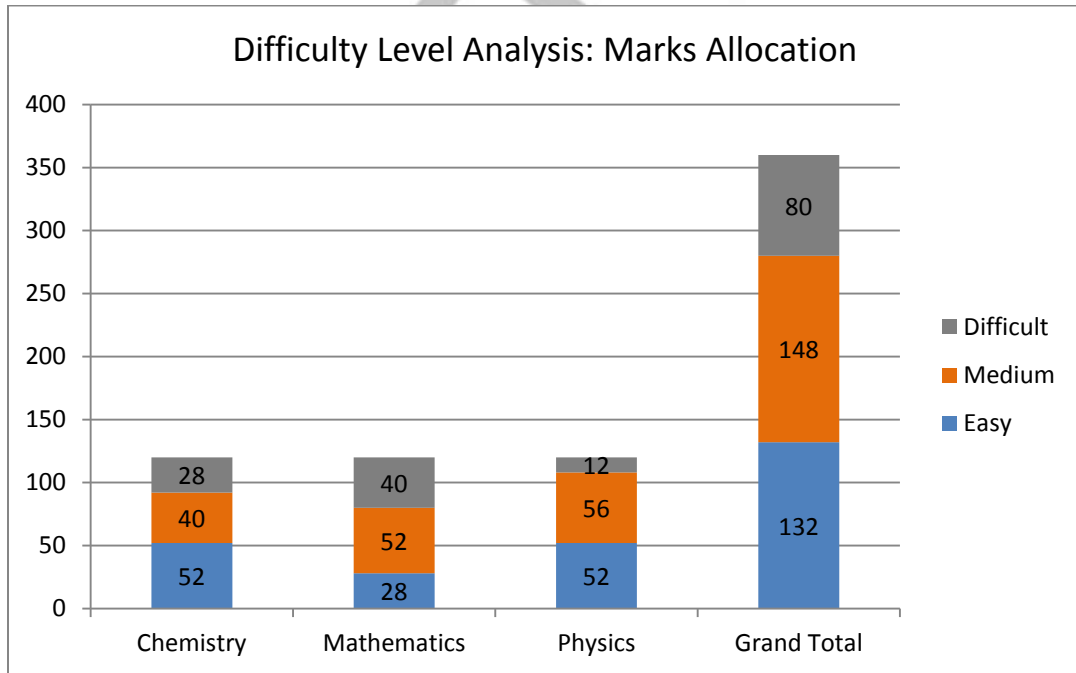
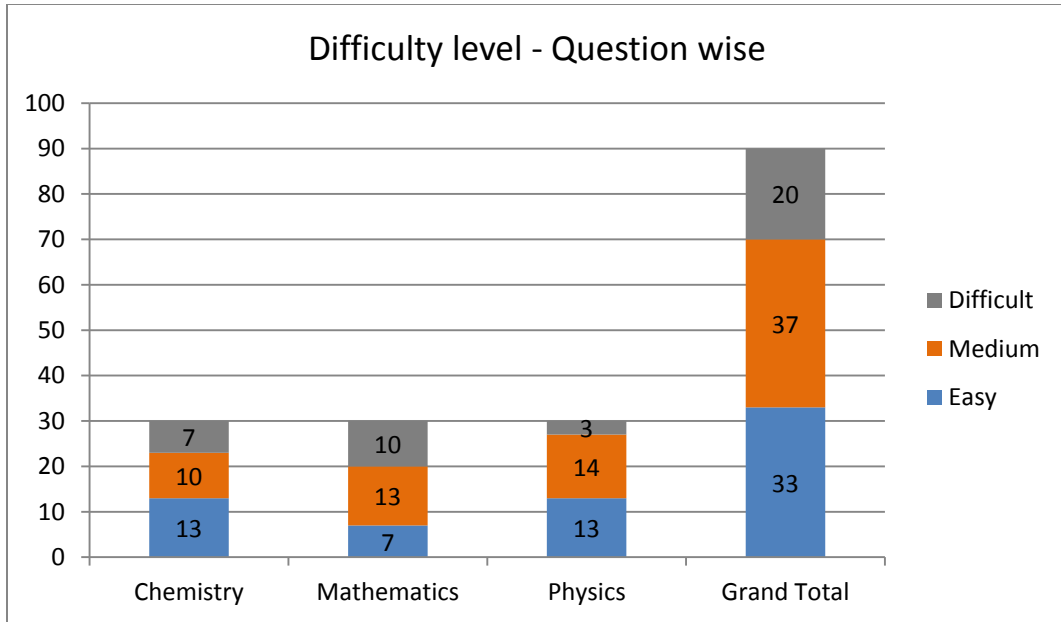
Subject	Difficulty Level
Chemistry	1.80
Mathematics	2.10
Physics	1.67
Overall Average	1.86



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	10	40	7	28
Mathematics	7	28	13	52	10	40
Physics	13	52	14	56	3	12
Grand Total	33	132	37	148	20	80

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. Also, the number of seat have increased this year from 2,20,000 to 2,24,000.

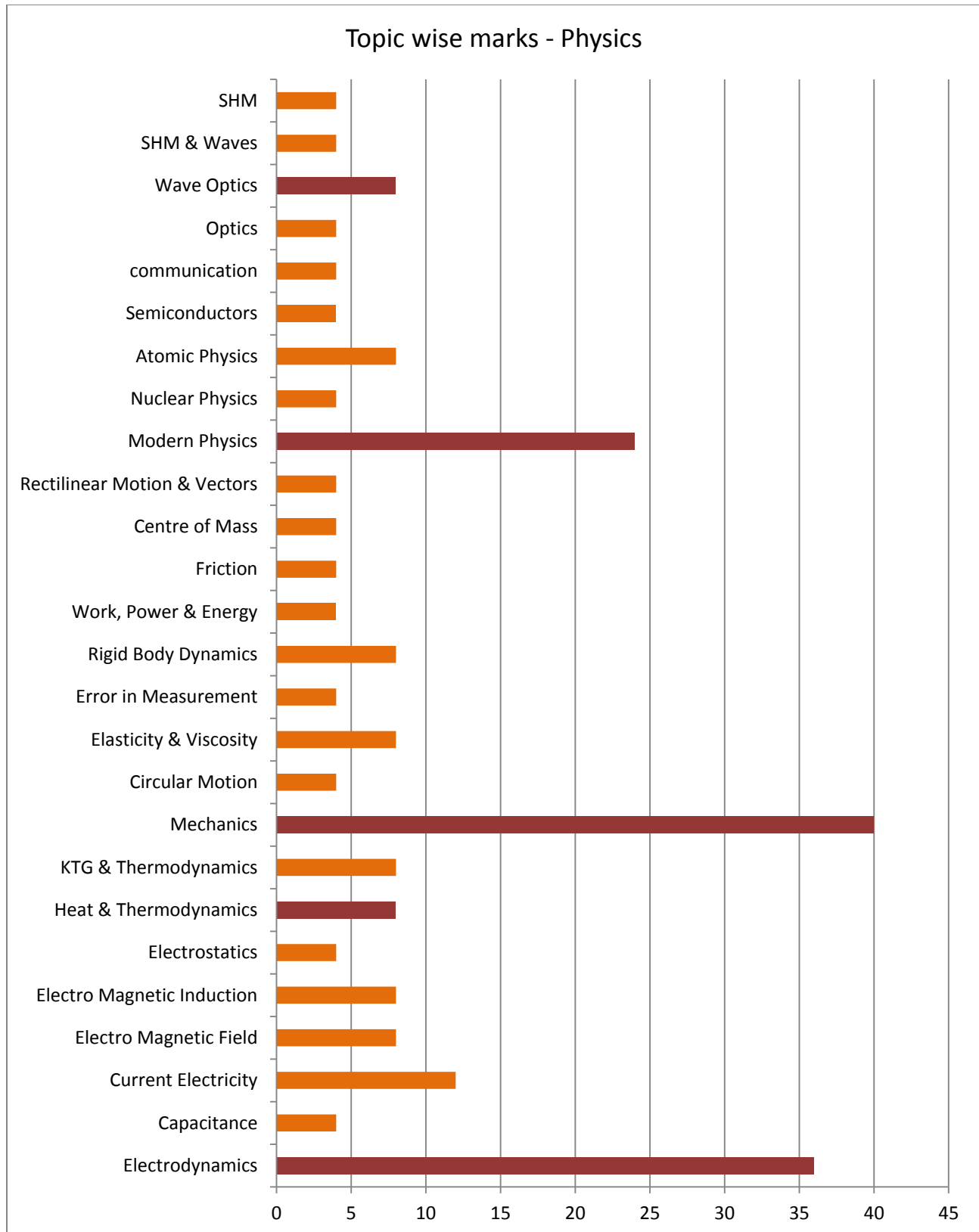


Subject-Wise Analysis

A – Physics

Topic wise allocation of # of Questions & Marks

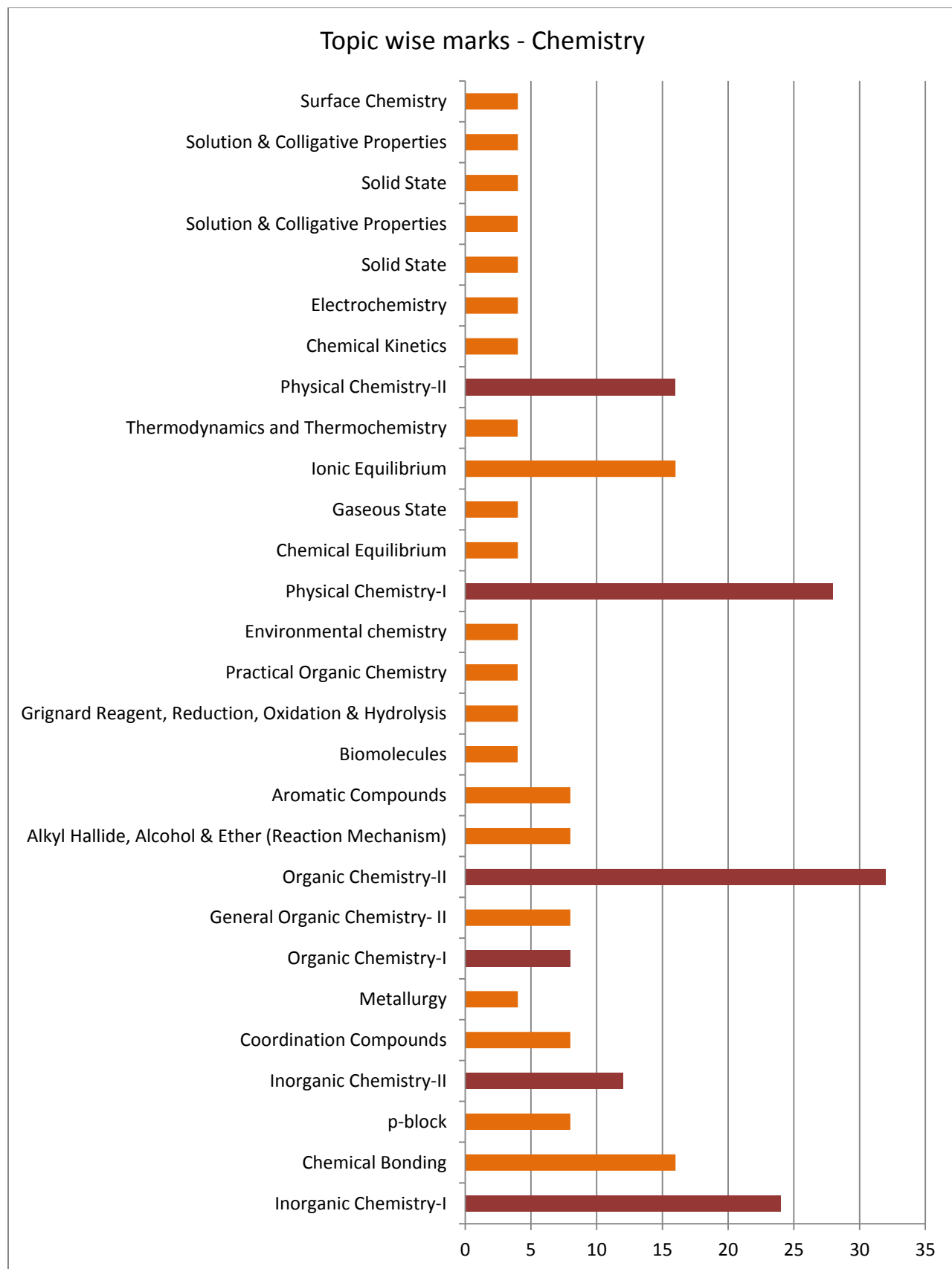
Physics			
UNIT & TOPIC NAME	NO OF QUESTION	TOTAL MARKS	% WEIGHTAGE
Electrodynamics	9	36	30.00%
Capacitance	1	4	3.33%
Current Electricity	3	12	10.00%
Electro Magnetic Field	2	8	6.67%
Electro Magnetic Induction	2	8	6.67%
Electrostatics	1	4	3.33%
Heat & Thermodynamics	2	8	6.67%
KTG & Thermodynamics	2	8	6.67%
Mechanics	10	40	33.33%
Circular Motion	1	4	3.33%
Elasticity & Viscosity	2	8	6.67%
Error in Measurement	1	4	3.33%
Rigid Body Dynamics	2	8	6.67%
Work, Power & Energy	1	4	3.33%
Friction	1	4	3.33%
Centre of Mass	1	4	3.33%
Rectilinear Motion & Vectors	1	4	3.33%
Modern Physics	6	24	20.00%
Nuclear Physics	1	4	3.33%
Atomic Physics	2	8	6.67%
Semiconductors	1	4	3.33%
communication	2	8	6.67%
Optics	2	8	6.67%
Wave Optics	2	8	6.67%
SHM & Waves	1	4	3.33%
SHM	1	4	3.33%
Grand Total	30	120	100.00%



B – Chemistry

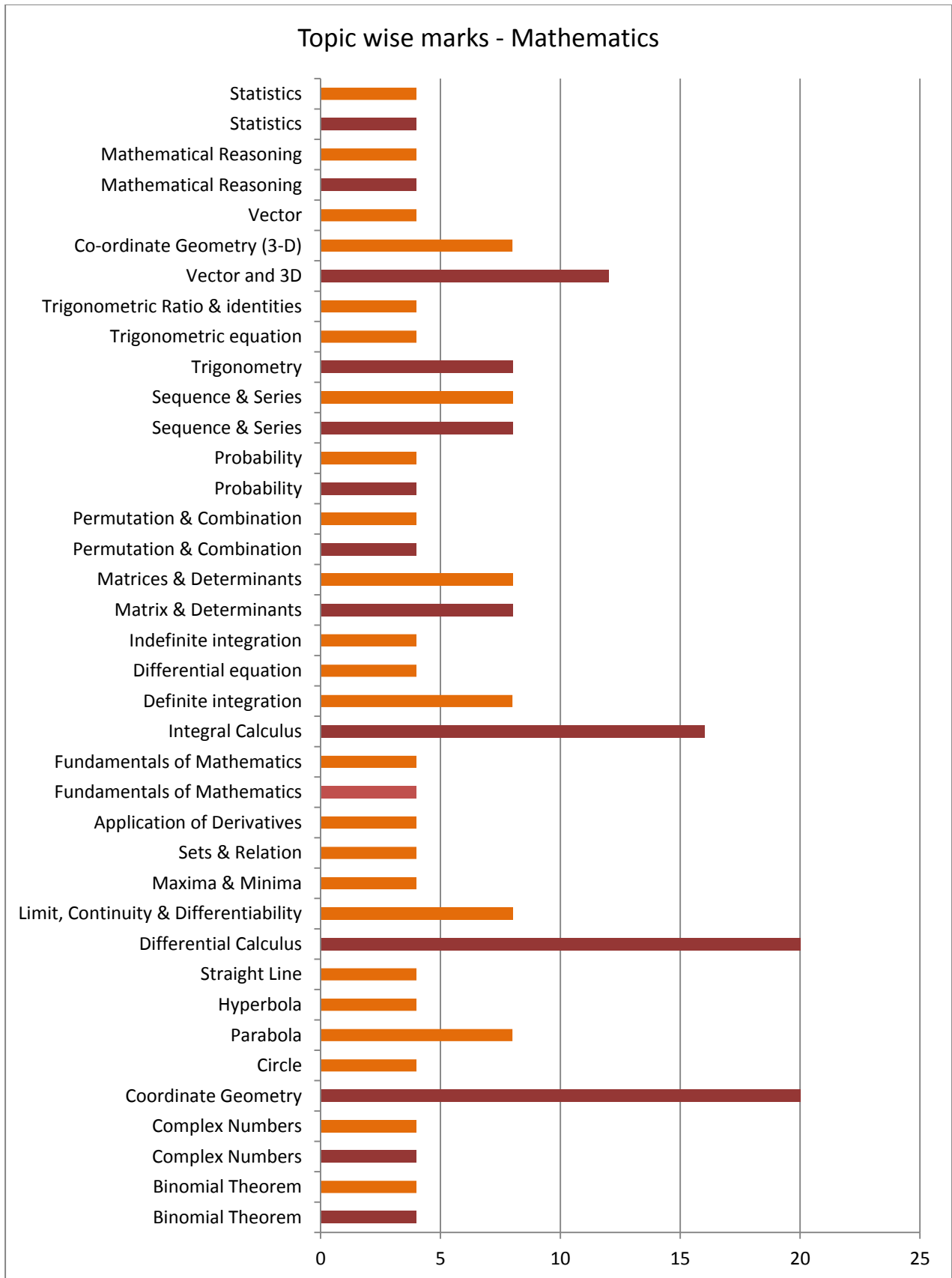
Topic wise allocation of # of Questions & Marks

Chemistry			
UNIT & TOPIC NAME	NO OF QUESTION	TOTAL MARKS	% WEIGHTAGE
Inorganic Chemistry-I	6	24	20.00%
Chemical Bonding	4	16	13.33%
p-block	2	8	6.67%
Inorganic Chemistry-II	3	12	10.00%
Coordination Compounds	2	8	6.67%
Metallurgy	1	4	3.33%
Organic Chemistry-I	2	8	6.67%
General Organic Chemistry- II	2	8	6.67%
Organic Chemistry-II	8	32	26.67%
Alkyl Halide, Alcohol & Ether (Reaction Mechanism)	2	8	6.67%
Aromatic Compounds	2	8	6.67%
Biomolecules	1	4	3.33%
Grignard Reagent, Reduction, Oxidation & Hydrolysis	1	4	3.33%
Practical Organic Chemistry	1	4	3.33%
Environmental chemistry	1	4	3.33%
Physical Chemistry-I	7	28	23.33%
Chemical Equilibrium	1	4	3.33%
Gaseous State	1	4	3.33%
Ionic Equilibrium	4	16	13.33%
Thermodynamics and Thermochemistry	1	4	3.33%
Physical Chemistry-II	4	16	13.33%
Chemical Kinetics	1	4	3.33%
Electrochemistry	1	4	3.33%
Solid State	1	4	3.33%
Solution & Colligative Properties	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 MARKS	% WEIGHTAGE
Binomial Theorem	1	4	3.33%
Binomial Theorem	1	4	3.33%
Complex Numbers	1	4	3.33%
Complex Numbers	1	4	3.33%
Coordinate Geometry	5	20	16.67%
Circle	1	4	3.33%
Parabola	2	8	6.67%
Hyperbola	1	4	3.33%
Straight Line	1	4	3.33%
Differential Calculus	5	20	16.67%
Limit, Continuity & Differentiability	2	8	6.67%
Maxima & Minima	1	4	3.33%
Sets & Relation	1	4	3.33%
Application of Derivatives	1	4	3.33%
Fundamentals of Mathematics	1	4	3.33%
Fundamentals of Mathematics	1	4	3.33%
Integral Calculus	4	16	13.33%
Definite integration	2	8	6.67%
Differential equation	1	4	3.33%
Indefinite integration	1	4	3.33%
Matrix & Determinants	2	8	6.67%
Matrices & Determinants	2	8	6.67%
Permutation & Combination	1	4	3.33%
Permutation & Combination	1	4	3.33%
Probability	1	4	3.33%
Probability	1	4	3.33%
Sequence & Series	2	8	6.67%
Sequence & Series	2	8	6.67%
Trigonometry	2	8	6.67%
Trigonometric equation	1	4	3.33%
Trigonometric Ratio & identities	1	4	3.33%
Vector and 3D	3	12	10.00%
Co-ordinate Geometry (3-D)	2	8	6.67%
Vector	1	4	3.33%
Mathematical Reasoning	1	4	3.33%
Mathematical Reasoning	1	4	3.33%
Statistics	1	4	3.33%
Statistics	1	4	3.33%
Grand total	30	120	100.00%



Expected Cutoff

JEE (Main) 2018: Tentative*				
Category	% Reservation	Total Seats	Cut-off Marks	% Cutoff
General	50.50%	1,31,120	70	19.44%
OBC	27.00%	60,480	38	10.55%
SC	15.00%	33,600	28	7.77%
ST	7.50%	16,800	25	6.94%
Total	100.00%	2,24,000		
JEE (Main) 2018: Maximum Marks				360

* To Qualify in JEE (Advanced), student should be in Top-20% of all students or should have scored minimum 75% marks (GEN/OBC) and 65% marks (ST/SC) in class 12th

* Within each of these four categories, 5% horizontal reservation is available for PwD candidates

The Cut-off of JEE (Main) 2018 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.