

NSEJS - 2018

A Detailed Analysis by Resonance

On 18th November 2018, NSEJS (National Standard Examination in Junior Science) - 2018 exam was conducted by the Indian Association of Physics Teachers (IAPT) at many centers all over the country. NSEJS is the stepping stage for selection of aspiring and talented students in the Junior Science Olympiad Program. The student can move forward to other stages only after clearing this stage.

Eligibility: Only Indian citizens born between January 1, 2004 and December 31, 2005 (both days inclusive) and are students studying in Class X or lower as of November 30, 2018, can apply and appear for NSEJS 2018. The student must not appear any of the senior science Olympiad. The student has to himself re-assure his eligibility. At any stage if the student is found to be not eligible for the exam, he/she may be disqualified from the Program

Syllabus: The syllabus for National Standard Examination in Junior Science (NSEJS) is almost similar as the curriculum of secondary level (Class IX and Class X) of CBSE. However, only basic guideline for the course is mentioned. No detailed syllabus is given for NSEJS. There were questions from physics, mathematics, biology and chemistry.

Question Paper: The medium of test was English only and it comprised of 80 objective type questions, each with only one of the four options correct with 3 marks each and -1 negative marking for incorrect answer.

Qualifying for the Second Stage: The basic objective of conducting this test is not focusing on merit but to involve as many students from the country to participate in the exam and try to show and expose their talent. Hence the selection to the stage II examinations i.e. Indian National Olympiad Examinations (INOs) is based on the following scheme

a) Eligibility Clause: To be eligible to get to the next level, i.e. the second stage, it is necessary that a student scores at-least a Minimum Admissible Score (MAS) which is 50% of the average of top 10 students across the nation.

b) Proportional Representation Clause: The maximum number of students that can get to Stage II (INO) in each subject is around 300. These many students are not selected only on the merit basis but also on proportionate basis. This proportion is decided on the base of the number of candidates who appeared for NSE in the previous year from that center in each State or Union Territory (UT). In case there is a tie at the last position, then all the students competing for the last position will be eligible to move to stage II. However it's necessary that the selected students fulfill the eligibility clause laid out above. The total number to be selected from centers in each State for each subject will be displayed on the IAPT and HBCSE websites.

Minimum Representation Clause: Notwithstanding the proportional representation clause the number of students selected for INO from each State and UT must be at least one, provided that the eligibility clause is satisfied.

Merit Clause: As stated above, approximately 300 students are to be selected for second stage. However, all the students scoring 80% of the average of top 10 students are considered selected even if the total selections surpassed 300.

There will be no other criterion or provision for selection to the Indian National Olympiad Examinations (INOs). All students who qualify to appear for the INJSO get a certificate of merit from IAPT.

OVERALL MARKS DISTRIBUTION

The paper pattern was same as last year. The paper had 80 questions each worth 3 marks. All questions were objective type with single correct option. If we talk about subject wise, then there were 20 questions from Mathematics and Biology, and 20 questions were from Physics and 20 questions were asked from Chemistry.

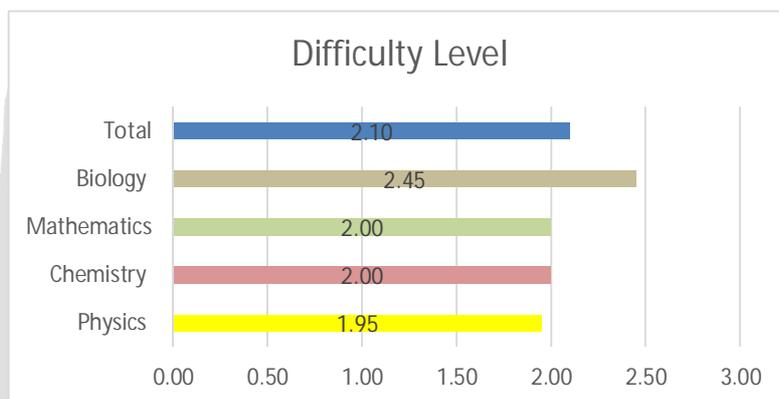
Subject	Class 8		Class 9		Class 10		Class 11		Class 12		Total	
	No of Questions	Total Marks	No of Questions	Total Mark								
Physics	1	3	3	9	5	15	8	24	3	9	20	60
Chemistry			7	21	6	18	3	9	4	12	20	60
Maths	2	6	3	9	9	27	6	18			20	60
Biology			2	6			6	18	12	36	20	60
Grand Total	3	9	15	45	20	60	23	69	19	57	80	240

OVERALL DIFFICULTY LEVEL ANALYSIS

In this analysis we have rated every question on a scale of 1 to 3. The ratings are done by expert faculty of Resonance. The individual ratings are then averaged to calculate overall difficulty level.

- 1: Easy
- 2: Moderate
- 3: Difficult

Subject	Difficulty Level
Physics	1.95
Chemistry	2.00
Mathematics	2.00
Biology	2.45
Total	2.10



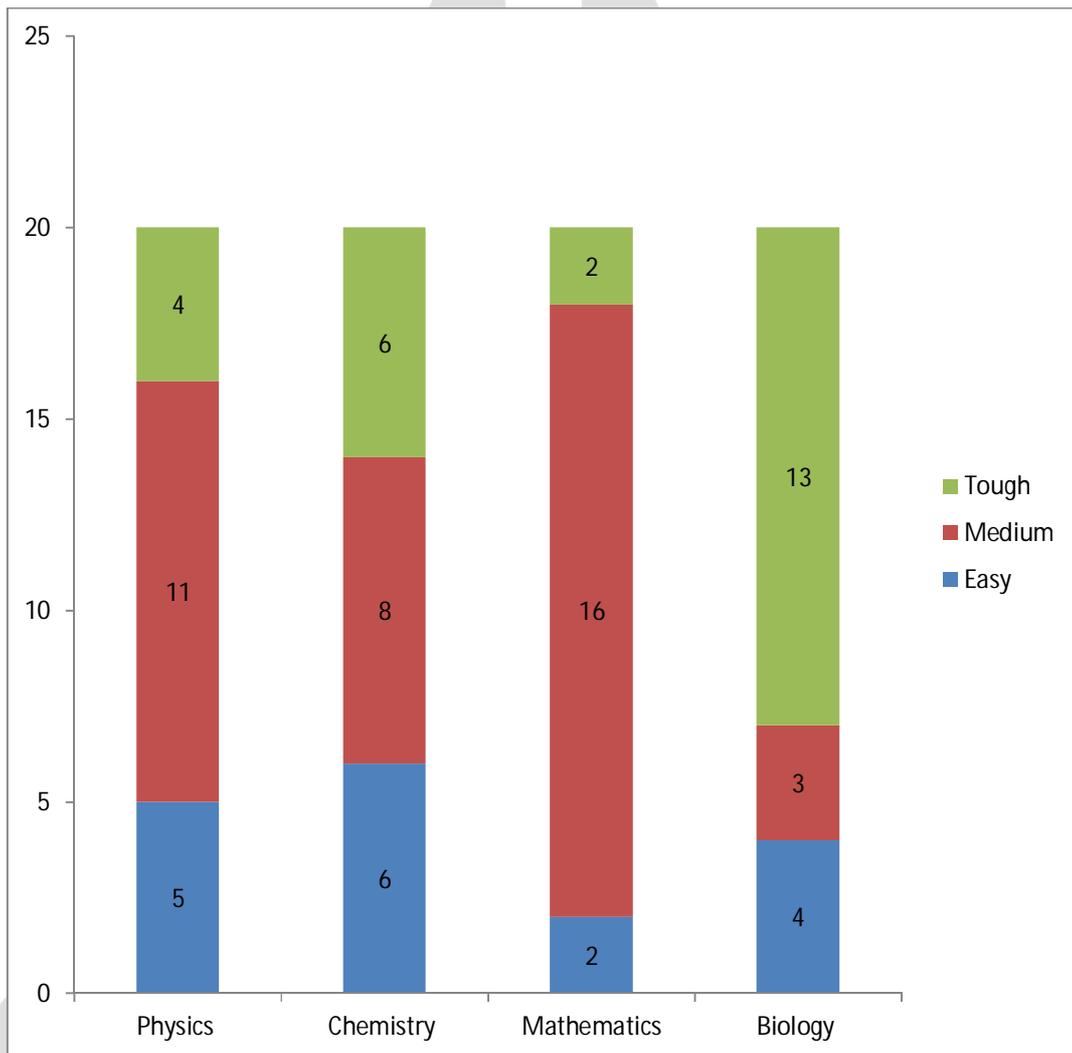
DIFFICULTY LEVEL ANALYSIS: NO OF QUESTIONS

Subject	Easy Level		Medium Level		Difficult Level		Total	
	No of Questions	Total Marks						
Physics	5	15	11	33	4	12	20	60
Chemistry	6	18	8	24	6	18	20	60
Mathematics	2	6	16	48	2	6	20	60
Biology	4	12	3	9	13	39	20	60
Grand Total	17	51	38	114	25	75	80	240

Resonance Experts feel that Physics was easy, while Biology & Mathematics were on tougher side compared with other subjects. While around 51 Marks can be considered easy overall, 114 marks are moderately difficulty and 75 marks are considered difficult by Resonance Team.

Overall, it is felt by Resonance Faculty Team that paper was on tougher side compared to last year and the cut-off is expected to be lower than that of last year.

QUESTION WISE DIFFICULTY BREAKUP



SUBJECT WISE ANALYSIS

PHYSICS ANALYSIS

Physics			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Physics	60	60	100.00%
Coulomb's law	3	3	5.00%
ELECTRICITY (Electrostatics)	3	3	5.00%
Anomalous Behaviour Of Water	3	3	5.00%
Heat	3	3	5.00%
Combination Of Resistance	3	3	5.00%
ELECTRICITY	3	3	5.00%
Concave Mirror	3	3	5.00%
Light	3	3	5.00%
Deviation Through Two Plane Mirror	3	3	5.00%
Light	3	3	5.00%
Dimension	3	3	5.00%
Unit Dimension	3	3	5.00%
Echo	3	3	5.00%
Sound	3	3	5.00%
Effeciency & Power	3	3	5.00%
WORK, ENERGY AND POWER	3	3	5.00%
Equation Of Motion	3	3	5.00%
Rectilinear Motion	3	3	5.00%
Floatation	3	3	5.00%
FLUID	3	3	5.00%
Induced Current	3	3	5.00%
E.M.I	3	3	5.00%
Node & Anti Node	3	3	5.00%
Wave Motion & Sound	3	3	5.00%
ohm's Law	3	3	5.00%
ELECTRICITY	3	3	5.00%
Potential & E.L .O.F	3	3	5.00%
ELECTRICITY (Electrostatics)	3	3	5.00%
Radiation	3	3	5.00%
Heat	3	3	5.00%
Shadow	3	3	5.00%
Light	3	3	5.00%
Simple Pendulum	3	3	5.00%
S.H.M	3	3	5.00%
T.I.R	3	3	5.00%
Light	3	3	5.00%

Thermal Expansion	3	3	5.00%
Heat	3	3	5.00%
Velocity	3	3	5.00%
Rectilinear Motion	3	3	5.00%
Grand Total	60	60	100.00%

CHEMISTRY ANALYSIS

Chemistry			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Chemistry	60	60	100.00%
Acids, Bases And Salts	6	6	10.00%
Acids, Bases And Salts	6	6	10.00%
Analytical Chemistry	3	3	5.00%
Analytical Chemistry	3	3	5.00%
Carbon	3	3	5.00%
Carbon	3	3	5.00%
Equivalent Concept	9	9	15.00%
Equivalent Concept	9	9	15.00%
Metals And Non-Metals	6	6	10.00%
Metals And Non-Metals	6	6	10.00%
Mole Concept	21	21	35.00%
Mole Concept	21	21	35.00%
Periodic Table And Periodicity In Properties	3	3	5.00%
Periodic Table And Periodicity In Properties	3	3	5.00%
Study Of Gas Laws	9	9	15.00%
Study Of Gas Laws	9	9	15.00%
Grand Total	60	60	100.00%

BIOLOGY ANALYSIS

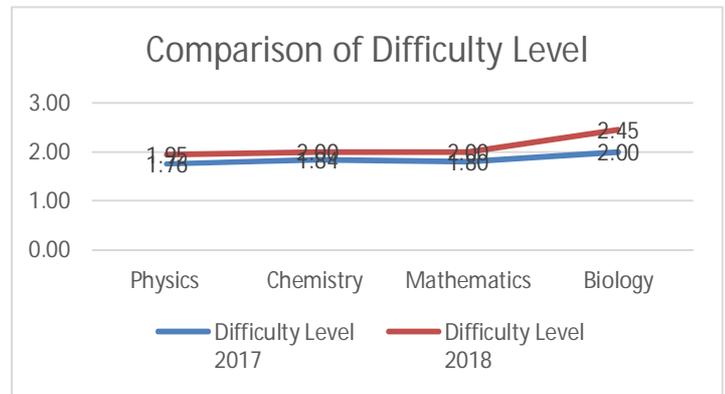
Biology			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Biology	60	60	100.00%
Bio-Diversity	9	9	15.00%
Chordates	3	3	5.00%
Monera	3	3	5.00%
Non-Chordates	3	3	5.00%
Biotech	3	3	5.00%
GMC	3	3	5.00%
C & C	9	9	15.00%
Endocrine System	3	3	5.00%
Nerve conductor	3	3	5.00%
Symphthetic Nervous System	3	3	5.00%
Cell biology	6	6	10.00%
Cell organelles	3	3	5.00%
Types of Cell	3	3	5.00%
Ecology	3	3	5.00%
Conservation of Bio-Diversity	3	3	5.00%
Heredity & Evolution	12	12	20.00%
Genetics	9	9	15.00%
Mutation	3	3	5.00%
Human Health & Diseases	3	3	5.00%
Immunity	3	3	5.00%
Microbes in Human Welfare	3	3	5.00%
Biofertilizer	3	3	5.00%
Molecular Basis of Inheritance	9	9	15.00%
DNA	6	6	10.00%
DNA Finger Printing	3	3	5.00%
Reproduction	3	3	5.00%
Asexual Reproductions	3	3	5.00%
Grand Total	60	60	100.00%

MATHEMATICS ANALYSIS

Mathematics			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Mathematics	60	60	100.00%
A.P.	6	6	10.00%
A.P.	6	6	10.00%
Area Of Parallelogram & Triangles	3	3	5.00%
Area Of Parallelogram & Triangles	3	3	5.00%
Circle	6	6	10.00%
Circle	6	6	10.00%
G.P	3	3	5.00%
G.P	3	3	5.00%
Linear Equation In Two Variable	3	3	5.00%
Linear Equation In Two Variable	3	3	5.00%
Number System	15	15	25.00%
Number System	15	15	25.00%
P & C	6	6	10.00%
P & C	6	6	10.00%
Quadratic Equation	6	6	10.00%
Quadratic Equation	6	6	10.00%
Quadrilaterals	3	3	5.00%
Quadrilaterals	3	3	5.00%
Ratio & Proportion	3	3	5.00%
Ratio & Proportion	3	3	5.00%
Similar Triangles	3	3	5.00%
Similar Triangles	3	3	5.00%
Trigonometry	3	3	5.00%
Trigonometry	3	3	5.00%
Grand Total	60	60	100.00%

COMPARISON OF DIFFICULTY LEVEL SUBJECT WISE

Comparison of Difficulty Level Subject Wise		
Subject	Difficulty Level 2017	Difficulty Level 2018
Physics	1.76	1.95
Chemistry	1.84	2.00
Mathematics	1.80	2.00
Biology	2.00	2.45
Total	1.85	2.10



STATE WISE EXPECTED CUTOFF

Overall, it is felt by Resonance Faculty Team that paper was on tougher side compared to last year and the cut-off is expected to be lower than that of last year. You can predict your selection by using scientifically developed [selection predictor tool](#).