

# <u>INJSO - 2020</u>

# A Detailed Analysis by Resonance

On 01<sup>ST</sup> February 2020, INJSO (Indian National Junior Science Olympiad) - 2020 exam was conducted by the Homi Bhabha Centre for Science Education (HBCSE) at many centers all over the country. INJSO is the second stage for selection of aspiring and talented students in the Junior Science Olympiad Program. The student can move forward to attend the Orientation Cum Selection Camp (OCSC) after clearing this stage.

**Eligibility:** Only Indian citizens born between January 1, 2005 and December 31, 2006, (both days inclusive) and are students studying in Class X or lower as of November 30, 2019, can apply and appear for NSEJS 2019. 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. Student satisfying these criterion can apply and appear for INJSO 2020 after clearing NSEJS, 2019.

Syllabus: No detailed syllabus is given for INJSO. There were questions from Physics, Biology and Chemistry.

**Question Paper:** The medium of test was English only and it comprised of 35 question (15 objective type questions with 3 marks each and - 01 negative marking for incorrect answer, 09 objective type question with 05 marks each one or more options correct and 11 subjective type questions of total 90 marks.

Merit Clause: Approximately 35 students are to be selected for camp.

#### **OVERALL MARKS DISTRIBUTION**

The medium of test was English only and it comprised of 35 question (15 objective type questions with 3 marks each and - 01 negative marking for incorrect answer and 09 subjective type question with 05 marks each one or more options correct and 11 subjective type questions of total 90 marks. Subject wise breakup is given below.

Cubinat	Class 9	Class 10	Class 11	Class 12	Total
Subject	Total Marks				
Biology	13	34	8	5	60.0
Chemistry	5	36	19		60.0
Physics	6	20	26	5	57.0
Mathematics			3		3.0
Grand Total	24	90	56	10	180



#### **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 members of Resonance. The individual ratings are then averaged to calculate overall difficulty level.

• 1: Easy

• 2: Moderate

• 3: Difficult

Subject	<b>Difficulty Level</b>
Biology	2.00
Chemistry	2.05
Physics	2.46
Mathematics	2.00
Total	2.16



## **DIFFICULTY LEVEL ANALYSIS: NO OF QUESTIONS**

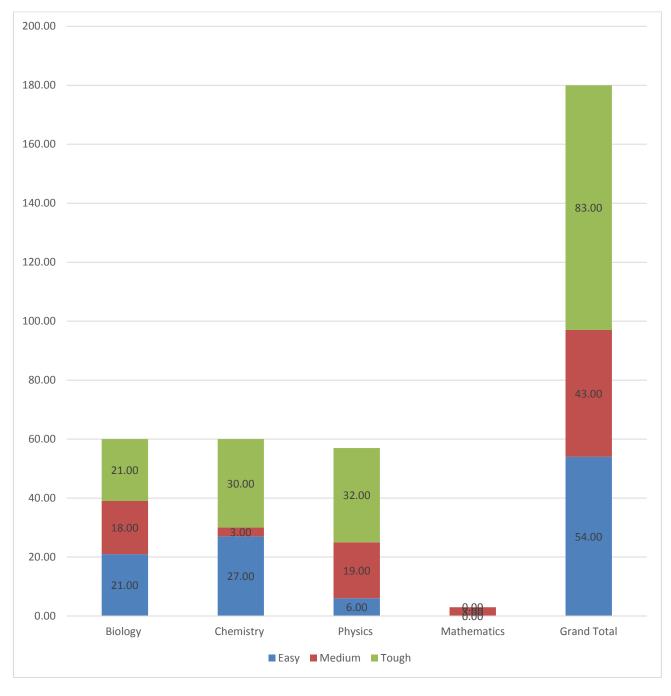
Subject	Easy Level	Medium Level	Difficult Level	Total
Subject	Total Marks	Total Marks	Total Marks	Total Marks
Biology	21	18	21	60
Chemistry	27	3	30	60
Physics	6	19	32	57
Mathematics		3		3
Grand Total	54	43	83	180

Resonance's Experts feel that Chemistry was on easier side as compare to remaining subjects Physics was lengthy and difficult as compare to last year. While around 54 Marks can be considered easy overall, 43 marks are moderately difficulty and 83 marks are considered difficult by Resonance Team.

Overall, it is felt by Resonance Faculty Team that this year paper was on Tougher side as compared to last year paper.



# **QUESTION WISE DIFFICULTY BREAKUP**





# **SUBJECT WISE ANALYSIS**

#### **PHYSICS ANALYSIS**

PHYSICS				
	UNIT & TOPIC NAME	TOTAL MARKS	(%) WEIGHTAGE	
Physics		57	100.00%	
Electrostatic		5	8.77%	
Properties Of Ele	ctric Line Of Force	5	8.77%	
Electricity		8	14.04%	
Combination Of	Resistance	5	8.77%	
Dependence Of I	Resistance On Temperature	3	5.26%	
Fluid		9	15.79%	
Buoyant Force		3	5.26%	
Density & Conce	ntration	6	10.53%	
Light		9	15.79%	
A-Spherical Lens B- Refraction Through	n Glass Slab	4	7.02%	
Mirror Formula		5	8.77%	
Magnetic Effect Of	Current	3	5.26%	
Magnetic Field D	ue To Current Carrying Wire	3	5.26%	
Motion		5	8.77%	
Uniform And No	n Uniform Motion	5	8.77%	
NLM		15	26.32%	
Newton's Second	d Law	15	26.32%	
Wave Motion		3	5.26%	
Wave Speed		3	5.26%	
Grand Total		57	100.00%	



# **CHEMISTRY ANALYSIS**

CHEMISTRY			
UNIT & TOPIC NAME	TOTAL MARKS	(%) WEIGHTAGE	
Chemistry	60	100.00%	
Acid Base & Salts	3	5.00%	
Neutralization Reaction	3	5.00%	
Chemical Reaction And Equation	6	10.00%	
Balancing Of Reaction	3	5.00%	
Displacement Reaction	3	5.00%	
Concentration	7	11.67%	
Mole Concept	7	11.67%	
Description Of Group	5	8.33%	
Periodic Table	5	8.33%	
Metal & Non Metal	6	10.00%	
Ionic Compound	3	5.00%	
Nature Of Oxide	3	5.00%	
Properties Of Elements	16	26.67%	
Periodic Table	16	26.67%	
Simple Mole Calculation	5	8.33%	
Mole Concept	5	8.33%	
Stoichiometry	12	20.00%	
Mole Concept	12	20.00%	
Grand Total	60	100.00%	



# **BIOLOGY ANALYSIS**

Biology					
UNIT & TOPIC NAME		TOTAL MARKS	(%)	(%) WEIGHTAGE	
Biology		60		100.00%	
Biomolecules		5		8.33%	
Nucleic Acid		5		8.33%	
Cell		3		5.00%	
Microscopy		3		5.00%	
Cell Division		3		5.00%	
Mitosis		3		5.00%	
Ecology		5		8.33%	
Productivity		5		8.33%	
Heredity & Evolution		6		10.00%	
Evolution		3		5.00%	
Genetics		3		5.00%	
Nutrition		3		5.00%	
Digestion In Human		3		5.00%	
Our Environment		13		21.67%	
Ecological Pyramids		5		8.33%	
Food Chain		8		13.33%	
Transportation		12		20.00%	
Human Circulatory System		5		8.33%	
Transportation In Plants		7		11.67%	
Why Do We Fall III		10		16.67%	
Infectious Disease		10		16.67%	
Grand Total		60		100.00%	



## MATHEMATICS ANALYSIS

MATHEMATICS			
UNIT & TOPIC NAME	TOTAL MARKS	(%) WEIGHTAGE	
Mathematics	3	100.00%	
Permutation & Combination	3	100.00%	
Grid Problem	3	100.00%	
Grand Total	3	100.00%	

## EXPECTED CUTOFF

Overall, it is felt by Resonance faculty team that paper was on tougher side as compared to last year's paper and the cut-off is expected to be lower than that of last year. The expected cut off would be 95-100.