

NMTC Stage II – 2017

A Detailed Analysis by Resonance

NMTC 2017: The National Mathematics Talent Contests (NMTC) is a national level examination cum Cash Awards for the top 3 winners in each level. The Cash Awards program is conducted by AMTI (Association of Mathematics Teachers of India) and students studying in class V to XII are eligible to appear for the **NMTC 2017**. NMTC was conducted on 26th August, 2017 across the nation and stage 2 was conducted on 28th October, 2017.

Eligibility: As per the eligibility criteria of NMTC, students studying in class V to XII are eligible to appear for the **NMTC 2017**. A student from any state of the country can register for this examination and Award scheme. A student can be from a government or a private school.

Stages: NMTC Examination is divided in two stages. 10% students are selected at every center of the examination to appear for second stage. After second stage, National Level merit list is declared.

Pattern/ Syllabus: The syllabus for NMTC examination is pre-degree college mathematics. The areas covered are, mainly

- **Algebra:** Polynomials, Solving equations, inequalities and complex numbers.
- **Geometry:** Geometry of triangles and circles.(Trigonometric methods, vector methods, complex number methods, transformation geometry methods can also be used to solve problems)
- **Number Theory:** Divisibility, Diophantine equations, congruence relations, prime numbers and elementary results on prime numbers.
- **Combinatorics & Graph Theory:** Counting techniques, pigeonhole principle, principle of inclusion and exclusion, basic graph theory.

QUESTION PAPER TYPE AND CLASS WISE MARKS DISTRIBUTION

The analysis below is for the three levels of papers:

- 1) Primary (common paper for class V and VI)
- 2) Sub-Junior (common paper for class VII and VIII)
- 3) Junior (common paper for class IX and X)

Primary	Class - V		Class - VI		Total	
Subject	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Mathematics	0	0	6	6	6	6

Sub-Junior	Class - VII		Class - VIII		Total	
Subject	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Mathematics	0	0	6	6	6	6

Junior	Class - IX		Class - X		Total	
Subject	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Mathematics	0	0	6	6	6	6

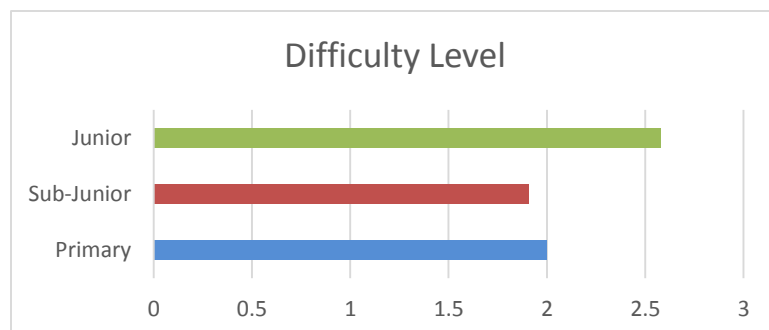
OVERALL DIFFICULTY LEVEL ANALYSIS

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

Level	Easy Level		Medium Level		Difficult Level	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Primary	2	2	2	2	2	2
Sub-Junior	1.5	1.5	3.5	3.5	1	1
Junior	0	0	2.5	2.5	3.5	3.5

Level	Difficulty Level
Primary	2.00
Sub-Junior	1.91
Junior	2.58



Overall, it was felt that paper of Sub-Junior and Primary was easier from last year while Junior paper was tougher than the last year.

SUBJECT WISE AND TOPIC WISE ANALYSIS

UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Junior	6	6	100.00%
Algebra	2	2	33.33%
Combinatorics	0.5	0.5	8.33%
Geometry	1.5	1.5	25.00%
Inequality	0.5	0.5	8.33%
Number System	0.5	0.5	8.33%
Theory of Equations	1	1	16.67%
Primary	6	6	100.00%
Geometry	1	1	16.67%
Number System	3	3	50.00%
Sequence	2	2	33.33%
Sub Junior	6	6	100.00%
Algebra	3	3	50.00%
Combinatorics	1	1	16.67%
Geometry	1.5	1.5	25.00%
Number System	0.5	0.5	8.33%