

NTSE - 2016

A Detailed Analysis by Resonance

NTSE 2016: The National Talent Search Examination (NTSE) is a national level examination cum scholarship program. The scholarship programme is conducted by NCERT and students studying in class X are eligible for **NTSE 2016** examination and selection procedure. NTSE stage-I was conducted on November 7 in union territories and November 8, 2015 in rest of India and was conducted on May 8, 2016 for Stage II.

Eligibility: As per the eligibility criteria of NTSE 2016 all the students studying in X standard are eligible to apply for this scholarship programme. A student from any state of the country can register for this examination and scholarship scheme. Whether a student is from a government or a private school, he/she is eligible.

Pattern/ Syllabus: The National Talent Search Examination is conducted for students studying at the Class X level. The examination consists of two tests:

1. Mental Ability Test (MAT)
2. Scholastic Aptitude Test (SAT)

NTSE Mental Ability Test (MAT) Syllabus

This test is given to you to judge your power of reasoning, ability to think, ability to judge, evaluate or discriminate, ability to visualize in the space, spatial orientation, etc. A variety of questions, for example - analogies, classification, series, pattern perception, hidden figures, coding decoding, block assembly, problem solving, etc. are used for this purpose.

NTSE Scholastic Aptitude Test (SAT) Syllabus (Language Test)

Language Test is designed to judge the power of reading comprehension, logical sequencing; interpretative, evaluative, predictive and creative components of language. The test is conducted for English and Regional Languages.

NTSE Scholastic Aptitude Test (SAT) Syllabus (Maths, Science & Social Science)

This section is conducted to judge how much of text-book knowledge you have gained. As India doesn't has any single unified board system, NCERT has not prescribed any particular syllabus for the State Level Examination or for National Level Examination.

You can expect questions that are asked at the National Level (Stage-II) to be standard of Classes IX and X level.

Question Paper: The medium of test is English and regional languages and it comprised of 200 question. The students have to select and mark one right answer from the four given options. Each right answer carry one point each, thus making the total score of the candidate in a test equal to the number of questions answered correctly. However, at the second stage 1/3 mark is deducted for every wrong answer.

Merit Clause: All the students who achieve requisite scores at this level automatically qualify for scholarships that are handed over by NCERT.

OVERALL MARKS DISTRIBUTION

The **NTSE 2016 Exam Pattern** was an objective type test based on paper-pen format.

Test	No. Of Questions	Maximum Marks	Time Allotted
MAT	50 Questions	50 Marks	45 minutes
SAT - Language Test	50 Questions	50 Marks	45 minutes
SAT - Maths, Science, Social Sciences	100 Questions	100 Marks	90 minutes

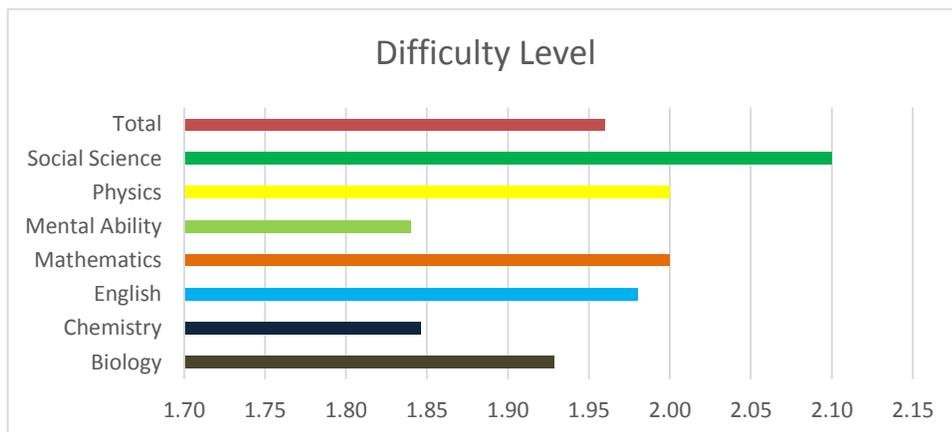
Subject	Class 9		Class 10		Total	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Biology	3	3	11	11	14	14
Chemistry	4	4	9	9	13	13
English			50	50	50	50
Mathematics	6	6	14	14	20	20
Mental Ability			50	50	50	50
Physics	3	3	10	10	13	13
Social Science	26	26	14	14	40	40
Grand Total	42	42	158	158	200	200

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
Biology	1.93
Chemistry	1.85
English	1.98
Mathematics	2.00
Mental Ability	1.84
Physics	2.00
Social Science	2.10
Total	1.96



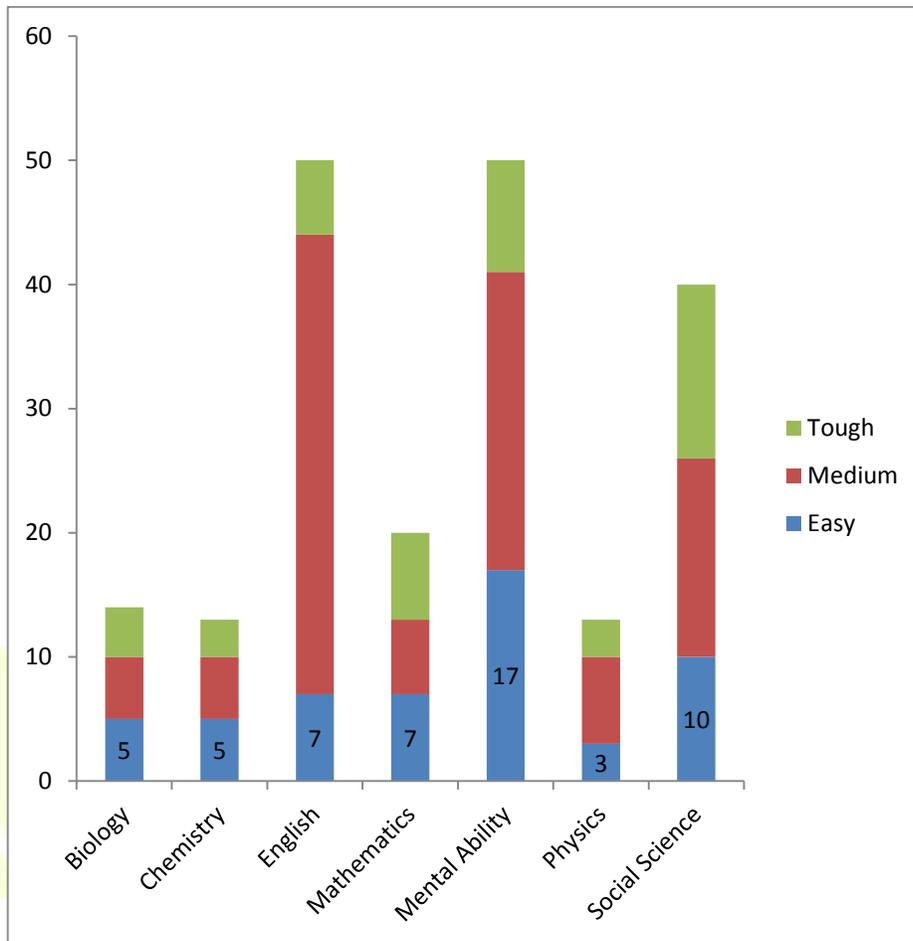
Difficulty Level Analysis: No of Questions

Subject	Easy Level		Medium Level		Difficult Level	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Biology	5	5	5	5	4	4
Chemistry	5	5	5	5	3	3
English	7	7	37	37	6	6
Mathematics	7	7	6	6	7	7
Mental Ability	17	17	24	24	9	9
Physics	3	3	7	7	3	3
Social Science	10	10	16	16	14	14
Grand Total	54	54	100	100	46	46

Resonance Experts feel that all subjects were of similar difficulty level, while Social Science, Mathematics, Physics, Biology and English were on tougher side, Chemistry, Mental Ability were of moderate difficulty. While around 54 Marks can be considered easy overall, 100 marks are moderately difficulty and 46 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 but as the MAT paper was easy, the cut-off is expected to be higher 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	13	13	100.00%
Electricity	3	3	23.08%
Electric current,	1	1	7.69%
Electric Field & potential	2	2	15.38%
Fluid	1	1	7.69%
Buoyancy and force of buoyancy	1	1	7.69%
Force & Laws of Motion (NLM)	1	1	7.69%
Principle of conservation of linear momentum	1	1	7.69%
Light	4	4	30.77%
Eye	1	1	7.69%
Linear Magnification, Refraction through prism,	1	1	7.69%
Refraction of Light, Laws of Refraction Index	2	2	15.38%
Magnetic Effect of current & EMI	2	2	15.38%
Electromagnet	1	1	7.69%
Motion of charged particle in a magnetic field (Lorentz force)	1	1	7.69%
Motion	1	1	7.69%
Motion in one, two & three dimensions	1	1	7.69%

Work, Energy & Power (WEP)	1	1	7.69%
Kinetic energy, Potential energy,	1	1	7.69%
Grand Total	13	13	100.00%

CHEMISTRY ANALYSIS

Chemistry			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Chemistry	13	13	100.00%
carbon and its compounds	3	3	23.08%
Introduction of organic chemistry, vital force theory, Wohler's synthesis, Covalent bonding, Properties and examples of covalent compounds,	1	1	7.69%
IUPAC Nomenclature , Isomerism	1	1	7.69%
Soaps & Detergents	1	1	7.69%
chemical reactions and chemical equations	3	3	23.08%
General introduction of chemistry and chemical reactions, Characteristics of chemical reaction, Balancing of equations, Specialities & Limitations of chemical equation and their rectification,	1	1	7.69%
Oxidation and reduction reactions, Effect of oxidation in our daily life - Combustion, Respiration, Pollution, Corrosion and Rancidity,	1	1	7.69%
Types of chemical equations - Combination, decomposition, displacement and double displacement,	1	1	7.69%
Matter	1	1	7.69%
Pure substances , Elements , Compounds , Mixtures, Solution, Concentration of solution,	1	1	7.69%

Suspension, Colloidal Solution			
metals and non-metals	3	3	23.08%
Chemical properties of non metals, octet rule, Ionic bond	2	2	15.38%
Introduction of metals and non - metals, Physical properties of metals	1	1	7.69%
mole concept	2	2	15.38%
Chemical formula, Molecular mass and gram molecular mass, Formula unit mass, Mole concept,	1	1	7.69%
Atomic mass & gram atomic mass, Molecules	1	1	7.69%
structure of atom	1	1	7.69%
Introduction, atomic models,	1	1	7.69%
Grand Total	13	13	100.00%

BIOLOGY ANALYSIS

Biology			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Biology	14	14	100.00%
CELL	1	1	7.14%
Double membranous organelle, Single membranous organelle, Non-membranous organelle.	1	1	7.14%
CONTROL AND CO-ORDINATION	3	3	21.43%
Plant Chemical Control and Co-ordination, Animal Chemical control and Co-ordination.	3	3	21.43%
DIVERSITY	1	1	7.14%
Animal diversity - Basis of classification- Symmetry, coelom, germ layers, Non-	1	1	7.14%

chordates, chordates.			
HEREDITY AND VARIATION	1	1	7.14%
Heredity variation, Mendel's experiment inheritance, gene and DNA, Exception of Mendel's laws, pedigree, analysis.	1	1	7.14%
HUMAN DISEASES	1	1	7.14%
Terms, categories, Causative organisms, Treatment, Prevention.	1	1	7.14%
NATURAL RESOURCES & MANAGEMENT	1	1	7.14%
Natural resources, atmosphere, Bio-geo chemical cycles, Sustainable development, waste management.	1	1	7.14%
NUTRITION	1	1	7.14%
Animal Nutrition - Amoeba, Human Alimentary canal, Digestive gland & Mechanisms of Digestion.	1	1	7.14%
OUR ENVIRONMENT	3	3	21.43%
– Ecosystem, food chain, food web, Ecological Pyramids.	1	1	7.14%
– Pollution, Green house effect, Global warming.	2	2	14.29%
REPRODUCTION	1	1	7.14%
Human reproduction, Anatomy of male & female reproductive organs, Gametogenesis, Menstrual cycle, Embryology.	1	1	7.14%
TISSUE	1	1	7.14%
Plant tissue - Meristematic tissue Permanent tissue.	1	1	7.14%
Grand Total	14	14	100.00%

MATHEMATICS ANALYSIS

Mathematics			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Mathematics	20	20	100.00%
Area of plane figures	2	2	10.00%
Mixed problem	2	2	10.00%
Arithmetic Progression	1	1	5.00%
Sum of nth term	1	1	5.00%
Circles	3	3	15.00%
problem based on chords	1	1	5.00%
Secant and tangent	2	2	10.00%
Coordinate geometry	2	2	10.00%
Centres of Triangle	1	1	5.00%
section formula	1	1	5.00%
Linear equation in two variables	1	1	5.00%
Condition of solvability	1	1	5.00%
Number System	2	2	10.00%
HCF and LCM	1	1	5.00%
Rational numbers	1	1	5.00%
Plane Geometry	1	1	5.00%
Mixed Problem on Circle and Triangle	1	1	5.00%

Polynomial	2	2	10.00%
Relationship between zeros and coefficient of quadratic polynomial and cubic polynomials	1	1	5.00%
Value and zero of polynomials	1	1	5.00%
Probability	1	1	5.00%
Theoretical Probability	1	1	5.00%
Statistics	1	1	5.00%
Mean	1	1	5.00%
Surface area and volume	2	2	10.00%
Conversion of solids	2	2	10.00%
Trigonometry	2	2	10.00%
Heights and distances	1	1	5.00%
Trigonometric identities	1	1	5.00%
Grand Total	20	20	100.00%

MENTAL ABILITY ANALYSIS

Mental Ability			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Mental Ability	50	50	100.00%
Non Verbal Reasoning	10	10	20.00%
cube test	3	3	6.00%
dice test	3	3	6.00%

Figure Partition & counting	1	1	2.00%
Non-Verbal Analogy	1	1	2.00%
Non-verbal series	1	1	2.00%
water mirror image	1	1	2.00%
Verbal Reasoning	40	40	80.00%
Alpha Numeric series	1	1	2.00%
Alphabet Series	1	1	2.00%
Analogy	1	1	2.00%
Arithmetical Reasoning	9	9	18.00%
Blood Relation	1	1	2.00%
Coding-Decoding	2	2	4.00%
direction sense	2	2	4.00%
mathematical operations	1	1	2.00%
Missing term in figure	4	4	8.00%
number series	3	3	6.00%
Puzzle Test	6	6	12.00%
Ranking & Odering- Test	1	1	2.00%
Sitting arrangement	4	4	8.00%
Sylloligsm	2	2	4.00%
Venn Diagram	2	2	4.00%
Grand Total	50	50	100.00%

ENGLISH ANALYSIS

English			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
English	50	50	100.00%
Comprehension	15	15	30.00%
Reading Comprehension	15	15	30.00%
Grammar	3	3	6.00%
Synonyms ,antonyms	3	3	6.00%
Grammar and Collocation	24	24	48.00%
Fillers	14	14	28.00%
Paragraph completion/cloze test	10	10	20.00%
Verbal Reasoning	2	2	4.00%
Rearrangement of sentences	2	2	4.00%
Vocabulary	6	6	12.00%
idioms and phrases	6	6	12.00%
Grand Total	50	50	100.00%

SOCIAL SCIENCE ANALYSIS

Social Science			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Social Science	40	40	100.00%
Economics	5	5	12.50%
Poverty as a Challenge	1	1	2.50%
Sectors of the Indian Economy	2	2	5.00%
Story of Village Palampur	2	2	5.00%
Geography	15	15	37.50%
Agriculture	1	1	2.50%
Climate	2	2	5.00%
Drainage	1	1	2.50%
India - Size and Location	3	3	7.50%
Lifeline of National Economy	1	1	2.50%
Natural Vegetation & Wildlife	2	2	5.00%
Physical Features of India (Physical Divisions of India)	1	1	2.50%
Population	2	2	5.00%
Resources and Development	1	1	2.50%
Water Resource	1	1	2.50%
History	15	15	37.50%
Age of Industrialisation	1	1	2.50%

Clothing: A Social history	1	1	2.50%
Forest and Society	1	1	2.50%
French revolution	1	1	2.50%
History of Cricket	1	1	2.50%
Making of Global World	1	1	2.50%
Nationalism in europe	1	1	2.50%
Nationalism in India	2	2	5.00%
Nationalism in indo china	1	1	2.50%
Nazism and the Rise of Hitler	2	2	5.00%
Print and Culture	1	1	2.50%
Russian Revolution	2	2	5.00%
Political Science	5	5	12.50%
Democracy in Contemporary World	1	1	2.50%
Electoral Politics	1	1	2.50%
Constitutional Design	1	1	2.50%
Gender, Religion & Caste	1	1	2.50%
Working Of the institution	1	1	2.50%
Grand Total	40	40	100.00%

EXPECTED CUTOFF

Resonance Experts feel that while the overall paper was difficult from previous year, due to relative ease in solving mental ability questions, the cutoff is expected to increase from last year. As per Resonance Experts, cutoff should increase to **87 from 76.72** last year.

