### **Gujarat 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 6, 2016 and November 13, 2016 in different regions of India.

**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)
- Scholastic Aptitude Test (SAT)

**NTSE Mental Ability Test (MAT) Syllabus** 

This test is given to judge 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   | Column1     | Class 10  | Column2     | Total     | Column3     |
|--------------------|-----------|-------------|-----------|-------------|-----------|-------------|
|                    | No of     |             | No of     |             | No of     |             |
|                    | Questions | Total Marks | Questions | Total Marks | Questions | Total Marks |
| English            | 24        | 24          | 26        | 26          | 50        | 50          |
| Mathematics        | 13        | 13          | 7         | 7           | 20        | 20          |
| Mental Ability     | 25        | 25          | 25        | 25          | 50        | 50          |
| Science            | 18        | 18          | 22        | 22          | 40        | 40          |
| Social Science     | 16        | 16          | 24        | 24          | 40        | 40          |
| <b>Grand Total</b> | 96        | 96          | 104       | 104         | 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.

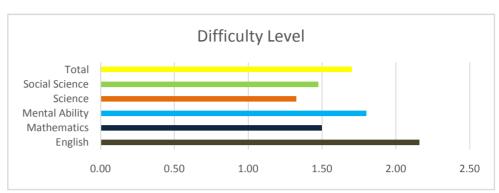
• 1: Easy

• 2: Moderate

• 3: Difficult



| Subject        | Difficulty Level |
|----------------|------------------|
| English        | 2.16             |
| Mathematics    | 1.50             |
| Mental Ability | 1.80             |
| Science        | 1.33             |
| Social Science | 1.48             |
| Total          | 1.70             |



#### **Difficulty Level Analysis: No of Questions**

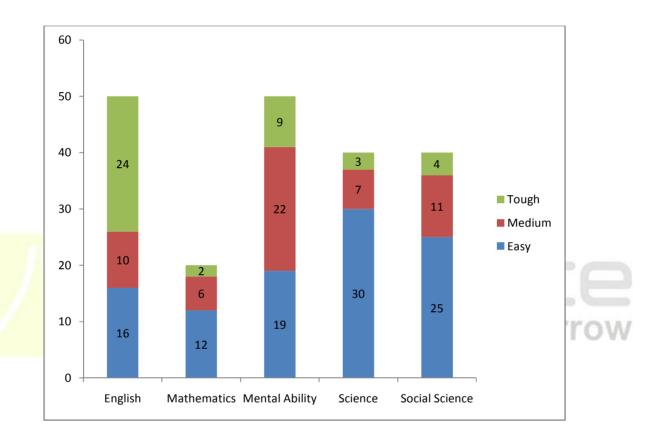
| Subject            | Easy Level         | Column1        | Medium<br>Level    | Column2     | Difficult Level    | Column3        |
|--------------------|--------------------|----------------|--------------------|-------------|--------------------|----------------|
|                    | No of<br>Questions | Total<br>Marks | No of<br>Questions | Total Marks | No of<br>Questions | Total<br>Marks |
| English            | 16                 | 16             | 10                 | 10          | 24                 | 24             |
| Mathematics        | 12                 | 12             | 6                  | 6           | 2                  | 2              |
| Mental Ability     | 19                 | 19             | 22                 | 22          | 9                  | 9              |
| Science            | 30                 | 30             | 7                  | 7           | 3                  | 3              |
| Social Science     | 25                 | 25             | 11                 | 11          | 4                  | 4              |
| <b>Grand Total</b> | 102                | 102            | 56                 | 56          | 42                 | 42             |

Resonance Experts feel that all subjects were of similar difficulty level. While around 102 Marks can be considered easy overall, 56 marks are moderately difficulty and 42 marks are considered difficult by Resonance Team.

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



#### **Question Wise Difficulty Breakup**





#### **SUBJECT WISE ANALYSIS**

#### **SCIENCE ANALYSIS**

| Science                                   |           |        |           |  |  |  |
|---|-----------|--------|-----------|--|--|--|
|   | NO OF     | TOTAL  | (%)       |  |  |  |
| UNIT & TOPIC NAME                         | QUESTIONS | MARKS  | WEIGHTAGE |  |  |  |
| Physics                                   | 13        | 13     | 100.00%   |  |  |  |
| Nanotechnology                            | 1         | 1      | 7.69      |  |  |  |
| Light                                     | 3         | 3      | 23.08     |  |  |  |
| Dispersion of Light and Natural optical   |           |        |           |  |  |  |
| phenomena                                 | 1         | 1      | 7.69      |  |  |  |
| Electricity                               | 2         | 2      | 15.38     |  |  |  |
| Motion                                    | 2         | 2      | 15.38     |  |  |  |
| Force                                     | 1         | 1      | 7.69      |  |  |  |
| Gravitation                               | 1         | 1      | 7.69      |  |  |  |
| WPE                                       | 1         | 1      | 7.69      |  |  |  |
| Sound                                     | 1         | 1      | 7.69      |  |  |  |
| BIOLOGY:                                  | 14        | 14     | 100.00%   |  |  |  |
| Heredity and evolution                    | 1         | 1      | 7.14%     |  |  |  |
| Plant tissue                              | 2         | 2      | 14.28%    |  |  |  |
| Disease                                   | 1         | 1      | 7.14%     |  |  |  |
| Diversity EQUCATION                       |           | ettera | 21.42%    |  |  |  |
| Food resources                            | 1         | 1      | 7.14%     |  |  |  |
| Our Environment                           | 1         | 1      | 7.14%     |  |  |  |
| Control and Co-ordination                 | 2         | 2      | 14.28%    |  |  |  |
| Transportation circulation & Excretion in |           |        |           |  |  |  |
| Organisms                                 | 1         | 1      | 7.14%     |  |  |  |
| Management of Natural resources           | 1         | 1      | 7.14%     |  |  |  |
| other                                     | 1         | 1      | 7.14%     |  |  |  |
| CHEMISTRY                                 | 13        | 13     | 100.00%   |  |  |  |
| Chemical Reactions and Chemical Equations | 1         | 1      | 7.69      |  |  |  |
| Chemical Bonding                          | 1         | 1      | 7.69      |  |  |  |
| Acid Bases and Salts                      | 3         | 3      | 23.07     |  |  |  |
| Atomic Structure                          | 1         | 1      | 7.69      |  |  |  |
| Properties of matter                      | 2         | 2      | 15.38     |  |  |  |
| Metals                                    | 2         | 2      | 15.38     |  |  |  |
| Non-metals                                | 3         | 3      | 23.07     |  |  |  |
| Grand Total                               | 40        | 40     | 100.00%   |  |  |  |



#### **MATHEMATICS ANALYSIS**

| Mathematics   |                 |             |               |  |  |  |
|---|-----------------|-------------|---------------|--|--|--|
| UNIT & TOPIC NAME   | NO OF QUESTIONS | TOTAL MARKS | (%) WEIGHTAGE |  |  |  |
| Mathematics   | 20              | 20          | 100.00%       |  |  |  |
| Area of plane figures                                       | 1               | 1           | 5.00%         |  |  |  |
| Linear equation in two variables                            | 2               | 2           | 10.00%        |  |  |  |
| Number System   | 2               | 2           | 10.00%        |  |  |  |
| Plane Geometry  |                 |             |               |  |  |  |
| Mixed Problem on Circle and                                 |                 |             |               |  |  |  |
| Triangle  | 1               | 1           | 5.00%         |  |  |  |
| Polynomial  | 1               | 1           | 5.00%         |  |  |  |
| Probability   | 1               | 1           | 5.00%         |  |  |  |
| Statistics  | 1               | 1           | 5.00%         |  |  |  |
| Surface area and volume                                     | 1               | 1           | 5.00%         |  |  |  |
| Trigonometry  | 3               | 3           | 15.00%        |  |  |  |
| Set operation   | 1               | 1           | 5.00%         |  |  |  |
| Trigonometry  | 2               | 2           | 10.00%        |  |  |  |
| Quadrilaterals Quadrilaterals Quadrilaterals Quadrilaterals | 1               | 1           | 5.00%         |  |  |  |
| Log   | 1               | 1           | 5.00%         |  |  |  |
| Similar Triangles   | 1               | 1           | 5.00%         |  |  |  |
| Circles   | 1               |             | 5.00%         |  |  |  |
| Grand Total   | 20              | 20          | 100.00%       |  |  |  |



#### **MENTAL ABILITY ANALYSIS**

| Mental Ability             |                    |                |                  |  |
|----------------------------|--------------------|----------------|------------------|--|
| UNIT & TOPIC NAME          | NO OF<br>QUESTIONS | TOTAL<br>MARKS | (%)<br>WEIGHTAGE |  |
| Mental Ability             | 50                 | 50             | 100.00%          |  |
| Non-Verbal Analogy         | 1                  | 1              | 2.00%            |  |
| Non-verbal classifications | 10                 | 10             | 20.00%           |  |
| Arithmetical Reasoning     | 4                  | 4              | 8.00%            |  |
| Blood Relation             | 1                  | 1              | 2.00%            |  |
| Coding-Decoding            | 10                 | 10             | 20.00%           |  |
| Direction sense            | 2                  | 2              | 4.00%            |  |
| Mathematical operations    | 1                  | 1              | 2.00%            |  |
| Missing term in figure     | 5                  | 5              | 10.00%           |  |
| Number series              | 10                 | 10             | 20.00%           |  |
| Ranking & Odering- Test    | 2                  | 2              | 4.00%            |  |
| Venn Diagram               | 1                  | 1              | 2.00%            |  |
| Clock                      | 2                  | 2              | 4.00%            |  |
| Cal <mark>end</mark> er    | 1                  | 1              | 2.00%            |  |
| Grand Total                | 50                 | 50             | 100.00%          |  |
| Eat                        | acating            | or b           | ettert           |  |

#### **ENGLISH ANALYSIS**

| English                    |                 |             |               |  |  |  |
|----------------------------|-----------------|-------------|---------------|--|--|--|
| UNIT & TOPIC NAME          | NO OF QUESTIONS | TOTAL MARKS | (%) WEIGHTAGE |  |  |  |
| English                    | 50              | 50          | 100.00%       |  |  |  |
| Literature                 |                 |             |               |  |  |  |
| 9th                        | 13              | 13          | 26.00%        |  |  |  |
| 10th                       | 14              | 14          | 28.00%        |  |  |  |
| Conjunction                | 1               | 1           | 2.00%         |  |  |  |
| Voice                      | 2               | 2           | 4.00%         |  |  |  |
| Phrase                     | 2               | 2           | 4.00%         |  |  |  |
| Antonyms                   | 3               | 3           | 6.00%         |  |  |  |
| Transformation of sentence | 10              | 10          | 20.00%        |  |  |  |
| Figures of Speech          | 1               | 1           | 2.00%         |  |  |  |
| Vocabulary                 | 4               | 4           | 8.00%         |  |  |  |
| <b>Grand Total</b>         | 50              | 50          | 100.00%       |  |  |  |



#### **SOCIAL SCIENCE ANALYSIS**

| Social Science                              |                    |                |                  |  |  |  |
|---|--------------------|----------------|------------------|--|--|--|
| UNIT & TOPIC NAME                           | NO OF<br>QUESTIONS | TOTAL<br>MARKS | (%)<br>WEIGHTAGE |  |  |  |
| Social Science                              | 40                 | 40             | 100.00%          |  |  |  |
| Agriculture(10)                             | 2                  | 2              | 5.00%            |  |  |  |
| general knowledge                           | 5                  | 5              | 12.50%           |  |  |  |
| Drainage                                    | 2                  | 2              | 5.00%            |  |  |  |
| India - Size and Location                   | 3                  | 3              | 7.50%            |  |  |  |
| Economic globalisation and liberalization   | 1                  | 1              | 2.50%            |  |  |  |
| Natural Vegetation & Wildlife               | 4                  | 4              | 10.00%           |  |  |  |
| Economic development                        | 3                  | 3              | 7.50%            |  |  |  |
| Natural resourcs                            | 2                  | 2              | 5.00%            |  |  |  |
| Resources and Development                   |                    |                |                  |  |  |  |
| Water Resource                              | 1                  | 1              | 2.50%            |  |  |  |
| Dynamics of human development               | 3                  | 3              | 7.50%            |  |  |  |
| Fundamental duties and rights and directive |                    |                |                  |  |  |  |
| <u>principles</u>                           | 1                  | 1              | 2.50%            |  |  |  |
| organs of government                        | 1                  | 1              | 2.50%            |  |  |  |
| Ou <mark>r glorious he</mark> ritage        | 2                  | 2              | 5.00%            |  |  |  |
| Indian culture: sculpture and architecture  | 2                  | 2              | 5.00%            |  |  |  |
| World war 1 & 2 Russian Revolution          | r bettei           | r tom          | 2.50%            |  |  |  |
| National movement of India                  | 1                  | 1              | 2.50%            |  |  |  |
| Movement towards Independence               | 1                  | 1              | 2.50%            |  |  |  |
| Post independent India                      | 1                  | 1              | 2.50%            |  |  |  |
| Indian culture: literature                  | 4                  | 4              | 10.00%           |  |  |  |
| 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 **128 from 126** last year.