





# DISTRICT REPORT CARD NATIONAL ACHIEVEMENT SURVEY CLASS X

CYCLE-2: 2017-18

#### **JHARKHAND**

**Hazaribag** 



The District Report Card (DRC) presents the academic achievement of secondary school students at the District Level along with the participation rate of students and schools in the National Achievement Survey (NAS). The DRC communicates the findings of the NAS Class X - Cycle 2, conducted on a representative sample of all types of schools in a district (max. of 80 schools) in five subjects i.e. Mathematics, Science, Social Science, English and Modern Indian Languages (MIL).

#### PERFORMANCE OF STUDENTS: SUBJECT WISE

| Subjects          | District Average (% correct) | State Average (% correct) | Significant Difference |
|-------------------|------------------------------|---------------------------|------------------------|
| Mathematics       | 32.82                        | 32.56                     | <b>⇔</b>               |
| Science           | 30.83                        | 31.37                     | <b>⇔</b>               |
| Social Science    | 37.51                        | 38.82                     | •                      |
| English           | 31.27                        | 31.67                     | <b>⇔</b>               |
| MIL (Read. Comp.) | 43.51                        | 45.11                     | <b>⇔</b>               |

- No significant difference between District and State average score.
- District average score is significantly ABOVE the State average score.
- District average score is significantly BELOW the State average score.

#### DISTRIBUTION OF STUDENTS BY RANGE (PERCENT CORRECT)

| Subjects          | Level    | 0-35 (%) | 36-50 (%) | 51-75 (%) | 76-100 (%) |
|-------------------|----------|----------|-----------|-----------|------------|
| Mathematics       | District | 67.97    | 22.22     | 8.82      | 0.98       |
| Mathematics       | State    | 69.11    | 19.97     | 9.56      | 1.37       |
| Science           | District | 72.37    | 21.32     | 6.30      | _          |
| Science           | State    | 70.07    | 22.64     | 7.05      | 0.25       |
| Social Science    | District | 49.08    | 32.05     | 18.03     | 0.83       |
| Social Science    | State    | 47.84    | 30.64     | 20.30     | 1.21       |
| English           | District | 73.24    | 19.23     | 6.41      | 1.12       |
| English           | State    | 71.57    | 17.64     | 9.67      | 1.11       |
| MII (Dood Comp.)  | District | 38.28    | 27.49     | 26.48     | 7.76       |
| MIL (Read. Comp.) | State    | 35.01    | 27.82     | 29.43     | 7.75       |

| Students<br>at risk       |  |  |
|---------------------------|--|--|
| Students need improvement |  |  |

## PERFORMANCE OF STUDENTS: CONTENT WISE

| Subjects                        | District Average<br>(% correct) | State Average<br>(% correct) | Significant Difference |
|---------------------------------|---------------------------------|------------------------------|------------------------|
| Mathematics                     | 32.82                           | 32.56                        | <b>⇔</b>               |
| Algebra                         | 35.18                           | 34.30                        | <b>⇔</b>               |
| Coordinate Geometry             | 26.74                           | 28.20                        | <b>⇔</b>               |
| Mensuration                     | 32.82                           | 33.32                        | <b>⇔</b>               |
| Geometry                        | 32.38                           | 31.47                        | <b>⇔</b>               |
| Statistics                      | 29.28                           | 30.49                        | <b>⇔</b>               |
| Trigonometry                    | 36.92                           | 37.31                        | <b>⇔</b>               |
| Number System                   | 30.69                           | 29.20                        | <b>⇔</b>               |
| Probability                     | 30.94                           | 31.55                        | <b>⇔</b>               |
| SCIENCE                         | 30.83                           | 31.37                        | <b>⇔</b>               |
| Food                            | 30.57                           | 29.75                        | <b>↔</b>               |
| Materials                       | 29.77                           | 30.12                        | <b>↔</b>               |
| The world of living             | 33.69                           | 33.65                        | <b>⇔</b>               |
| Moving things,people and ideas  | 32.46                           | 32.84                        | <b>↔</b>               |
| How things work                 | 27.03                           | 30.66                        |                        |
| Natural phenomena               | 24.51                           | 26.68                        |                        |
| Natural resources               | 38.45                           | 38.06                        | <b>⇔</b>               |
| SOCIAL SCIENCE                  | 37.51                           | 38.82                        |                        |
| Political Science               | 39.88                           | 42.20                        |                        |
| History                         | 36.18                           | 36.97                        | <b>↔</b>               |
| Economics                       | 36.96                           | 37.98                        | <b>⇔</b>               |
| Geography                       | 37.03                           | 38.15                        | <b>⇔</b>               |
| ENGLISH                         | 31.27                           | 31.67                        | <b>⇔</b>               |
| Reading Comprehension           | 30.88                           | 31.38                        | <b>\</b>               |
| Language Element                | 31.48                           | 31.87                        | <b>⇔</b>               |
| MODERN INDIAN<br>LANGUAGE (MIL) | 43.51                           | 45.11                        | <b>⇔</b>               |
| Reading Comprehension           | 43.51                           | 45.11                        | <b>+</b>               |

## SUBJECT WISE PERFORMANCE: GENDER

| Subjects          | Boys (% correct) | Girls (%<br>correct) | Significant<br>Difference |
|-------------------|------------------|----------------------|---------------------------|
| Mathematics       | 34.97            | 31.28                | •                         |
| Science           | 33.20            | 29.35                | •                         |
| Social Science    | 38.96            | 36.51                | •                         |
| English           | 31.16            | 31.41                | <b>⇔</b>                  |
| MIL (Read. Comp.) | 46.48            | 41.34                | •                         |

| Participation | N    | %     |
|---------------|------|-------|
| Boys          | 1254 | 41.16 |
| Girls         | 1784 | 58.55 |
| Others        | 9    | 0.30  |

## SUBJECT WISE PERFORMANCE: LOCATION

| Subjects          | Rural (% correct) | Urban (%<br>correct) | Significant<br>Difference |
|-------------------|-------------------|----------------------|---------------------------|
| Mathematics       | 32.97             | 31.39                | <b>⇔</b>                  |
| Science           | 30.58             | 33.49                | <b>⇔</b>                  |
| Social Science    | 37.44             | 38.24                | <b>⇔</b>                  |
| English           | 31.36             | 30.26                | <b>\( \rightarrow \)</b>  |
| MIL (Read. Comp.) | 42.85             | 49.94                | •                         |

| Participation | N    | %     |
|---------------|------|-------|
| Rural         | 2776 | 91.11 |
| Urban         | 271  | 8.89  |

## SUBJECT WISE PERFORMANCE: SCHOOL MANAGEMENT

| Subjects          | Govt.<br>(%<br>correct) | GovtAided<br>(% correct) | Sig.<br>Diff.     | Govt.<br>(%<br>correct) | Private (% correct) | Sig.<br>Diff. |
|-------------------|-------------------------|--------------------------|-------------------|-------------------------|---------------------|---------------|
| Mathematics       | 30.70                   | 31.34                    | $\Leftrightarrow$ | 30.70                   | 38.88               | •             |
| Science           | 29.79                   | 31.71                    | $\Leftrightarrow$ | 29.79                   | 33.52               | •             |
| Social Science    | 35.74                   | 37.01                    | $\Leftrightarrow$ | 35.74                   | 42.72               | •             |
| English           | 31.71                   | 29.86                    | <b>( )</b>        | 31.71                   | 30.38               | <b>+</b>      |
| MIL (Read. Comp.) | 41.50                   | 46.46                    | <b>( )</b>        | 41.50                   | 48.25               | •             |

| Participation | N    | %     |
|---------------|------|-------|
| Govt.         | 2107 | 69.15 |
| Govtaided     | 173  | 5.68  |
| Private       | 767  | 25.17 |

### PARTICIPATION OF STUDENTS BY

| Social Groups                | N    | %     |
|------------------------------|------|-------|
| Scheduled Caste (SC)         | 432  | 14.18 |
| Scheduled Tribe (ST)         | 191  | 6.27  |
| Other Backward Classes (OBC) | 2192 | 71.94 |
| Others                       | 232  | 7.61  |

| CWSN |      |  |
|------|------|--|
| N    | 10   |  |
| %    | 0.33 |  |

#### HOW TO READ AND UNDERSTAND DRC

| Performance of Students: Subject wise  | Distribution of Students by Range   |
|--|---|
| The table shows subject-wise average scores of students in<br>the District and the State. The table also depicts whether<br>the differences between the District and State average<br>scores are significant or not.         | The table shows subject-wise distribution of students, in different score ranges for the District and the State. The range values represent the percentage of students who have correctly responded to the questions.             |
| Performance of Students: Content wise  | Subject wise Performance: Gender, Location and School Management  |
| The table shows content (sub-domain) wise average scores of students in the District and the State. The table also depicts whether the differences between the District and the State average scores are significant or not. | Tables show the sub group wise (Gender, Location and School Management) average scores of students in the District and the State. These tables also depict whether the differences between the sub groups are significant or not. |

#### SUBJECT CONTENT COVERED IN NAS CLASS-X CYCLE 2

| Mathematics   | Science  | Social Science  | English   |
|---|--|---|---|
| 1. Algebra: patterns using variables, algebraic representation and functions 2. Geometry: shapes in two and three dimensions; relationships between shapes such as symmetry and transformations 3. Mensuration: measurement for attributes such as capacity, length, area, volume, time, angles, and rates 4. Trigonometry: trigonometric ratios; values of ratios and relationship between ratios; trigonometric ratios of complementary angles 5. Coordinate geometry: Cartesian plane; coordinates of a point; names and terms associated with the coordinate 6. Number system: ways to represent, calculate, and estimate numbers 7. Statistics: data representation; characteristics of data sets 8. Probability: experiments; samples and probability | 1. Food: plant and animal breeding; selection for quality improvement; use of fertilizers and manures; protection from pests and diseases; organic farming  2. Materials: cooling by evaporation; absorption of heat, all things which occupy space and possess mass; definition of matter; elements, compounds and mixtures; heterogeneous and homogeneous mixtures; colloids and suspensions  3. The living world: diversity of plants and animals - basic structure and functions of animal and plant tissues; health and its failure; disease and its causes  4. Moving things, people and ideas: motion, force & Newton's Law; work and energy  5. How things work: electric circuits, electric motors, magnetic fields and field lines; relationship between P,V,I & R; current  6. Natural Phenomena: convergence and divergence of light; images formed by a concave mirror; centre of curvature and principal axis; optical centre, focus and focal length; Laws of Refraction  7. Natural Resources: conservation of natural resources and sources of energy | 1. History: French Revolution; Nationalist Movement in Indo- China; Nationalism in India; Civil Disobedience Movement 2. Geography: India; climate; natural vegetation; population; natural resources; forest and wildlife resources; agriculture; water resources; mineral resources; power resources; manufacturing industries 3. Economics: economic story of Palampore; people as resource; poverty as a challenge facing India; food security; story of development; money & financial system; role of service sector in Indian economy; globalization; consumer awareness 4. Political Science: democracy in contemporary world; democracy: what & why; designing of democracy in India; electoral politics in democracy; institutions of parliamentary democracy; Citizens' Rights in democracy; working of Democracy; power sharing mechanisms in democracy; competition and contestations in democracy; outcomes of democracy; challenges to democracy | 1. Reading comprehension: unseen passages covers different aspects of language; cognitive processes such as location of information, grasping of ideas, interpretation, inference and evaluation were assessed; (comprehension questions remained the same across states) 2. Language element: grammar was assessed  MODERN INDIAN LANGUAGE (MIL) 1. Reading comprehension: unseen passages covers different aspects of language; cognitive processes such as location of information, grasping of ideas, interpretation, inference and evaluation were assessed; (comprehension questions remained the same across states) 2. Language Element: grammar was assessed |

**Note:** Average scores were computed by calculating the mean percentage of correct responses

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