

# TEST BOOKLET CODE J8

## Part I: Physics

| NCERT<br>Chapter<br>No. | Chapter Name                              | Question Number with Skills<br>Typology |                  |          | Total<br>Qns | Correct | Incorrect |
|-------------------------|---|---|------------------|----------|--------------|---------|-----------|
|                         |   | Concept/<br>Fact                        | Appli-<br>cation | Analysis |              |         |           |
| Class: XI               |   |   |                  |          |              |         |           |
| 1                       | Units and Measurements                    |   |                  |          | 0            |         |           |
| 2                       | Motion in a Straight Line                 |   | 14               |          | 1            |         |           |
| 3                       | Motion in a Plane                         |   |                  | 20       | 1            |         |           |
| 4                       | Laws of Motion                            |   | 27               |          | 1            |         |           |
| 5                       | Work, Energy and Power                    |   | 4, 30            |          | 2            |         |           |
| 6                       | System of Particles and Rotational Motion |   | 18, 26           |          | 2            |         |           |
| 7                       | Gravitation                               |   |                  | 8        | 1            |         |           |
| 8                       | Mechanical Properties of Solids           |   | 25               |          | 1            |         |           |
| 9                       | Mechanical Properties of Fluids           | 5                                       |                  |          | 1            |         |           |
| 10                      | Thermal Properties of Matter              | 9                                       |                  |          | 1            |         |           |
| 11                      | Thermodynamics                            | 17                                      | 1                |          | 2            |         |           |
| 12                      | Kinetic Theory                            | 13                                      |                  |          | 1            |         |           |
| 13                      | Oscillations                              |   |                  |          | 0            |         |           |
| 14                      | Waves                                     |   | 19               |          | 1            |         |           |
| 15                      | Practical Skills in Physics               |   | 29               |          | 1            |         |           |

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|                         |   | Concept/<br>Fact                        | Appli-<br>cation | Analysis |              |         |           |
| <b>Class: XII</b>       |   |   |                  |          |              |         |           |
| 1                       | Electric Charges and Fields   |   | 16               | 3        | 2            |         |           |
| 2                       | Electrostatic Potential and Capacitance                               |   | 23               |          | 1            |         |           |
| 3                       | Current Electricity   |   | 28               |          | 1            |         |           |
| 4                       | Moving Charges and Magnetism  |   | 12               |          | 1            |         |           |
| 5                       | Magnetism and Matter  | 15                                      |                  |          | 1            |         |           |
| 6                       | Electromagnetic Induction   |   |                  | 2        | 1            |         |           |
| 7                       | Alternating Current   |   | 22               |          | 1            |         |           |
| 8                       | Electromagnetic Waves   |   |                  |          | 0            |         |           |
| 9                       | Ray Optics and Optical Instruments                                    |   | 21               |          | 1            |         |           |
| 10                      | Wave Optics   |   | 6                |          | 1            |         |           |
| 11                      | Dual Nature of Radiation and Matter                                   |   | 10               |          | 1            |         |           |
| 12                      | Atoms   |   | 7                |          | 1            |         |           |
| 13                      | Nuclei  |   | 24               |          | 1            |         |           |
| 14                      | Semiconductor Electronics :<br>Materials, Devices and Simple Circuits | 11                                      |                  |          | 1            |         |           |
| 15                      | Practical Skills in Physics   |   |                  |          | 0            |         |           |

## Part II: Chemistry

| NCERT<br>Chapter<br>No. | Chapter Name   | Question Number with Skills<br>Typology |                  |          | Total<br>Qns | Correct | Incorrect |
|-------------------------|--|---|------------------|----------|--------------|---------|-----------|
|                         |  | Concept/<br>Fact                        | Appli-<br>cation | Analysis |              |         |           |
| <b>Class: XI</b>        |  |   |                  |          |              |         |           |
| 1                       | Some Basic Concepts of Chemistry                         |   | 60               |          | 1            |         |           |
| 2                       | Structure of Atom  |   |                  |          | 0            |         |           |
| 3                       | Classification of Elements and Periodicity in Properties |   |                  |          | 0            |         |           |
| 4                       | Chemical Bonding and Molecular Structure                 | 41                                      |                  |          | 1            |         |           |
| 5                       | Thermodynamics   |   | 59               |          | 1            |         |           |
| 6                       | Equilibrium  |   | 56               | 42       | 2            |         |           |
| 7                       | Redox Reactions  | 33                                      |                  |          | 1            |         |           |
| 8                       | The p-Block Elements (Group 13 & 14)                     |   |                  |          | 0            |         |           |
| 9                       | Organic Chemistry- Some Basic Principles and Techniques  | 37                                      |                  | 52       | 2            |         |           |
| 10                      | Hydrocarbons   | 43                                      |                  | 38       | 2            |         |           |
| <b>Class: XII</b>       |  |   |                  |          |              |         |           |
| 1                       | Solutions  | 33                                      | 51, 57           |          | 3            |         |           |
| 2                       | Electrochemistry   |   | 53, 55           |          | 2            |         |           |
| 3                       | Chemical Kinetics  |   | 58               |          | 1            |         |           |
| 4                       | The p-Block Elements (Gp 15, 16, 17, 18)                 | 32, 48                                  |                  | 40       | 3            |         |           |
| 5                       | The d- and f-Block Elements                              |   |                  |          | 0            |         |           |
| 6                       | Coordination Compounds                                   |   |                  | 36,49,54 | 3            |         |           |
| 7                       | Haloalkanes and Haloarenes                               | 50                                      |                  | 39       | 2            |         |           |
| 8                       | Alcohols, Phenols and Ethers                             |   |                  | 46       | 1            |         |           |
| 9                       | Aldehydes, Ketones and Carboxylic Acids                  |   |                  | 34       | 1            |         |           |
| 10                      | Amines   | 35                                      |                  | 47       | 2            |         |           |
| 11                      | Biomolecules   |   |                  |          | 0            |         |           |
| 12                      | Principles Related to Practical Chemistry                | 44, 45                                  |                  |          | 2            |         |           |



## Part III: Mathematics

| NCERT<br>Chapter<br>No. | Chapter Name                            | Question Number with Skills<br>Typology |                  |          | Total<br>Qns | Correct | Incorrect |
|-------------------------|---|---|------------------|----------|--------------|---------|-----------|
|                         |   | Concept/<br>Fact                        | Appli-<br>cation | Analysis |              |         |           |
| Class: XI               |   |   |                  |          |              |         |           |
| 1                       | Sets                                    |   |                  |          | 0            |         |           |
| 2                       | Relations & Functions                   | 66                                      |                  |          | 1            |         |           |
| 3                       | Trigonometric Functions                 |   |                  |          | 0            |         |           |
| 4                       | Complex Numbers and Quadratic Equations |   | 64, 68           | 69, 76   | 4            |         |           |
| 5                       | Permutations and Combinations           |   |                  |          | 0            |         |           |
| 6                       | Binomial Theorem                        |   |                  | 63       | 1            |         |           |
| 7                       | Sequence and Series                     | 83                                      |                  |          | 1            |         |           |
| 8                       | Straight Lines                          | 88                                      |                  | 81       | 2            |         |           |
| 9                       | Conic Sections                          |   | 70, 74           | 82       | 3            |         |           |
| 10                      | Limits and Derivatives                  |   |                  |          | 0            |         |           |
| 11                      | Statistics                              |   | 62               |          | 1            |         |           |
| 12                      | Probability                             |   | 65, 85           |          | 2            |         |           |

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|-------------------------|----------------------------------|---|------------------|----------|--------------|---------|-----------|
|                         |                                  | Concept/<br>Fact                        | Appli-<br>cation | Analysis |              |         |           |
| <b>Class: XII</b>       |                                  |   |                  |          |              |         |           |
| 1                       | Relations and Functions          |   |                  |          | 0            |         |           |
| 2                       | Inverse Trigonometric Functions  |   | 77               |          | 1            |         |           |
| 3                       | Matrices                         |   |                  | 89       | 1            |         |           |
| 4                       | Determinants                     | 87                                      |                  |          | 1            |         |           |
| 5                       | Continuity and Differentiability | 79                                      | 61, 73           | 86       | 4            |         |           |
| 6                       | Application of Derivatives       |   | 71               |          | 1            |         |           |
| 7                       | Integrals                        | 72                                      |                  |          | 1            |         |           |
| 8                       | Application of Integrals         |   |                  |          | 0            |         |           |
| 9                       | Differential Equations           | 67                                      |                  |          | 1            |         |           |
| 10                      | Vector Algebra                   | 75, 84                                  |                  |          | 2            |         |           |
| 11                      | Three Dimensional Geometry       | 78                                      | 80               |          | 2            |         |           |
| 12                      | Probability                      |   | 90               |          | 1            |         |           |

## Score Calculator

| Part/ Subject         | Total Questions | Maximum Score | Attempted | Correct | Incorrect | Net Score | Qualifying Marks |
|-----------------------|-----------------|---------------|-----------|---------|-----------|-----------|------------------|
| Part I : Physics      | 25              | 100           |           |         |           |           | 80               |
| Part II: Chemistry    | 25              | 100           |           |         |           |           | 85               |
| Part III: Mathematics | 25              | 100           |           |         |           |           | 75               |

Success Gap = Net Score- Qualifying Score

Net Score = (Correct x4)- (Incorrect x 1)

| Question Typology | *Remedial Measures                           |
|-------------------|--|
| Conceptual        | Revise Theory of Complete Chapter            |
| Application       | Revise and Practice Formulae Based Questions |
| Analysis          | Practice Critical Thinking Questions         |

\*NCERT page locator has been provided against each question in the test paper which will help the student to find and revise the concept used in the asked question from NCERT book.