1. **PATTERN.**

<table>
<thead>
<tr>
<th>Ser No</th>
<th>Subject</th>
<th>Questions</th>
<th>Marks</th>
<th>Min Pass Marks in each Part</th>
<th>Total aggregate pass mks</th>
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<td></td>
<td><strong>PART-I</strong></td>
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<tr>
<td>(a)</td>
<td>General Knowledge</td>
<td>05</td>
<td>20</td>
<td>32</td>
<td>80</td>
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<tr>
<td>(b)</td>
<td>General Science</td>
<td>05</td>
<td>20</td>
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<td>(c)</td>
<td>Maths</td>
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<td>40</td>
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<td>(d)</td>
<td>Cmptr Science</td>
<td>05</td>
<td>20</td>
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<td><strong>PART-II</strong></td>
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<td>(e)</td>
<td>General English</td>
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<td>100</td>
<td>32</td>
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<td>200</td>
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</table>

2. **SYLLABUS.**

**GENERAL KNOWLEDGE**

- **Abbreviations**
  National and International.

- **Sports**
  National and International.

- **Awards & Prizes**
  National awards, Gallantry awards, Nobel Prizes.

- **History**
  Important dates & battles in Indian and World History and land marks of Indian History, national movement.

- **Geography**
  Solar System Space exploration, The earth principal peaks, Deserts, Rivers, Lakes and famous waterfalls, Geographical Tallest, Biggest and Longest etc.

- **Terminology**
  Geographical terms, Economic terms, Astronomical terms, Legal terms and Misc terms.

**UNO**

Indian Armed Forces.

Indian Towns, States and Uts.

Institutions and Research Stations, International space Stations and Festivals of India and World.

Indian News Agencies and Dailies.

Continents and Sub Continents.

Inventions and Discoveries.
Environment.
The Constitution of India.
Religious communities and Principal Languages.
National and International Days.
International Organizations.
Books and Authors.
The world of Plants and animals.
Current Affairs and “Who’s Who”.

GENERAL SCIENCE

**Human Body** - Food and nutrition, diseases and prevention, vitamins and their uses.

Question of General Science consisting of topic related to Physics, Chemistry and Biology.
based on fundamentals and day to day activities.
Medical Terms.
Scientific Terms.
Scientific and Research Institutes in India.

**IO/Numeral Ability**

The questions will be based on the ability of the candidates of age group ranging
between 16 & 20 years.

**Note** The above syllabus is not a comprehensive list of topics pertaining to the
subject. At times questions may be asked other than the above topics but definitely
within the syllabus of CBSE.

**MATHS**

**Arithmetic**

Natural numbers, integers, fractions, rational/irrational numbers, decimal fractions, HCF &
LCM, square root, ratio and proportion, percentages, averages, profit & loss, simple and
compound interest.
Algebra

Addition, subtraction, multiplication and division of algebraic expressions, HCF & LCM, factorisation, simple equations, surds, indices, logarithms, Solution of linear equations of two and three variables.
Ratio and proportion meaning and standard form, roots and discriminant of a quadratic equation $ax^2 + bx + c = 0$;

Mensuration

Area and Volume

Area of four walls of a room, area of a circle, sector and segment of a circle; surface area and volume of cube, cuboids cone, cylinder, sphere.

Trigonometry

Trigonometric ratios of an angle A of a right angle triangle, Simple applications of trigonometric ratios for solving problems of different types, Simple identities based upon the above.

Heights and Distances

Solution of simple problems of height and distance using trigonometrical tables and logarithmic tables.

Geometry

Lines and Angles

Different characteristics of lines and angles, parallel and perpendicular lines, inserting lines, some of angles and triangles, interior and exterior angles.
Triangles-properties, equality, congruency and similarity with respect to sides and angles.
Parallelogram-types and properties.
Circles – Properties, arc, chords, tangents, secants and angles subtended by arcs.

Statistics

Histograms with given intervals, classification of data, frequency, frequency polygons, ogives. Mean, median and mode of grouped and ungrouped data, problems related to statistical techniques.

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COMPUTER

Computer System:

Characteristics of a computer, Basic applications of a computer, Components of a computer system – Central Processing unit (CPU), Visual Display Unit (VDU), Keyboard.

Concept of Memory

Primary and Secondary Memory, RAM and ROM, Units of Memory – Byte, Kilobyte, Megabyte, Gigabyte, Terabyte.

Input / Output Devices

Mouse, Joy Stick, Scanner, Microphone, OCR, MICR, Light pen, Bar code Reader, Digital Camera, Printer, Speaker, Plotter.

Booting procedure and Storage Devices

MS –Windows:

Basic concept of an Operating System and its functions.

Introduction to Windows:

Using Mouse and moving icons on the screen, My computer, Recycle Bin, Task Bar, Start0menu and menu selection, running an application, setting system date and time, Windows Explorer to view files, folders and directories, creating and renaming of files and folders, Opening and Closing of Windows Minimise, Restore and Maximise forms of windows, Basic components of a Window: Desktop, Frame, Title Bar, Menu Bar, Status Bar, Scroll Bars (Horizontal and Vertical), Using right button of the Mouse, Creating Shortcut, Basic Windows, Accessories: Notepad, Paint, Calculator, Wordpad.

MS Word

Introduction to a Word Processor, Creating and Saving a Document, Editing and Formatting a Document: Text Style (B.I.U), Font Type, Size, changing colour, alignment of text; Formatting paragraphs with line or paragraph spacing; adding headers and footers, numbering pages, using grammar and spell utilities, using subscript and superscript, inserting symbols, Print Preview, Printing a document, Inserting WordArt, Clipart and Pictures, Page setting, Bullets and Numbering, Borders and Shading, Format painter, Find and Replace, Inserting Tables: inserting, deleting-rows and columns, merging cells, splitting cells, using auto format.
MS Power Point

Introduction to presentation Graphics, understanding the concept of slides shows, Basic elements of a slide, Different types of slide Layouts, Creating and saving a presentation, Different views of a slide: Normal view, Slide Sorter view and Slide Show, Editing and Formatting a slide: Adding Titles, Subtitles, Text, Background, Watermark; Headers and Footers, Numbering Slides.

MS Excel

Introduction to Spreadsheets, Concept of Worksheets and workbooks, Creating and Saving a worksheet, Working with a spreadsheet: entering numbers, text, date/time, series using Auto Fill, Editing and formatting a worksheet including changing colour, size, font, alignment of text, inserting or deleting cells, rows and columns.

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ENGLISH

COMPREHENSION

GRAMMAR

1. **Parts of Speech.**
   (a) Article
   (b) Noun and Pronoun.
   (c) Adjective.
   (d) Preposition.
   (e) Conjunction and modals.

2. **Verbs**
   **Tenses:**
   
   Present/past forms  
   Simple/continuous form  
   Prefect forms  
   future time reference

3. **Sentence Structure**

   **Type of Sentences**
   
   Affirmative/interrogative sentences.  
   Use of Phrases.  
   Direct and Indirect speech.
4. **Other Areas**

(a) Idioms and Phrases.
(b) Synonyms and antonyms.
(c) One word substitution.

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