

ARMY PUBLIC SCHOOL BINNAGURI
ENTRANCE TEST SYLLABUS FOR CLASS XI-(2021-2022)

ENGLISH:

1. Unseen Comprehension
2. Integrated Grammar (Tenses/Reported Speech/Determiners)
3. Writing Tasks-
 - a. Formal/Informal Letter
 - b. Article Writing
 - c. Report Writing
 - d. Description/ Paragraph Writing
 - e. Notice Writing
 - f. Speech

MATHEMATICS:

1. Mensuration
2. Quadratic equations
3. Arithmetic progressions
4. Co-ordinate geometry
5. Probability
6. Trigonometry and application of trigonometry
7. Linear equation in two variables
8. Polynomials

SCIENCE:

CHEMISTRY:

Chemical Substances - Nature and Behaviour

Chemical reactions: Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation and reduction.

Acids, bases and salts: Their definitions in terms of furnishing of H^+ and OH^- ions, General properties, examples and uses, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.

Metals and nonmetals: Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds.

Carbon compounds: Covalent bonding in carbon compounds. Versatile nature of carbon. Homologous series.

Periodic classification of elements: Need for classification, early attempts at classification of elements (Dobereiner's Triads, Newland's Law of Octaves, Mendeleev's Periodic Table), Modern periodic table, gradation in properties, valency, atomic number, metallic and non-metallic properties.

PHYSICS:

Natural Phenomena

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification.

Refraction ; Laws of refraction, refractive index.

Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); Magnification. Power of a lens.

Refraction of light through a prism, dispersion of light, scattering of light, applications in daily Life.

Theme: How Things Work

Effects of Current:

Electric current, potential difference and electric current. Ohm's law; Resistance, Resistivity, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors and its applications in daily life. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R.

Magnetic effects of current: Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's Left Hand Rule, Electric Motor, Electromagnetic induction. Induced potential difference, Induced current. Fleming's Right Hand Rule

BIOLOGY:

1. Life processes (ch 6)
2. How do organism reproduce (ch 8)
3. Heredity and evolution (Only heredity, basic concepts of evolution)
4. Our environment (ch- 15)
5. Management of natural resources (Ch 16) (For internal assessment)

HISTORY:

1. The Indus Valley Civilization
2. The Mughal Empire
3. The Revolt of 1857
4. The Nationalist Movement from 1885-1947
5. The Contemporary world
 - The First World War
 - Rise of Dictatorship
 - The Second World War
 - United Nations
6. Understanding Partition (Indo-Pak)

MAP:

1. Major places associated with the revolt of 1857.
2. Major places associated with the nationalist movement in India.
3. Major Harappan sites

GEOGRAPHY:

- 1) Resources and development
- 2) Agriculture
- 3) Manufacturing Industry
- 4) Lifeline of National Economy
- 5) Climate
- 6) Physical Features of India
- 7) Natural Vegetation
- 8) Population

DEMOCRATIC POLITICS

- 1) Power Sharing
- 2) Federalism
- 3) Political Party
- 4) Outcomes of democracy
- 5) Constitutional Design

MAP:

Mountain Ranges: The Karakoram, The Zasker, The Shivalik, The Aravali, The Vindhya, The Satpura, Western & Eastern Ghats
Mountain Peaks – K2, Kanchan Junga, Anai Mudi
Plateau - Deccan Plateau, Chotta Nagpur Plateau, Malwa Plateau
Major Rivers of India, water bodies,
Standard Meridian
Direction of winds-south west (Bay of Bengal and Arabian sea branch) north east monsoon.