

## SYLLABUS FOR SOLDIER TECHNICAL/SOL (NA)

### 1. Pattern

Ser No	Subject	Questions	Marks	Pass Marks	Remarks
<b><u>SOL(TECH)</u></b>					
(a)	General Knowledge & Reasoning	10	40	80	
(b)	Maths	15	60		
(c)	Physics	15	60		
(d)	Chemistry	10	40		
<b><u>SOL(NA)</u></b>					
(a)	General Knowledge	10	40	80	
(b)	Maths	05	20		
(c)	Physics	05	20		
(d)	Biology	15	60		
(d)	Chemistry	15	60		

### 2. Syllabus.

(a) **General Knowledge** : The test will include questions relating to India and its neighboring countries especially pertaining to History, Culture, Geography and who's who. In addition Abbreviations, Sports, Awards and Prizes, Terminology, Indian Armed Forces, Continents and Sub Continents, Inventions and Discoveries, The Constitution of India, International Organizations, Books and Authors, Knowledge of Important events that have happened in India and at world level in the recent years, Current important world events, Prominent personalities etc.

(b) **Physics** : Physical Properties and States of Matter, Mass, Weight, Volume, Density and Specific Gravity, Principle of Archimedes, Pressure Barometer, Motion of objects, Velocity and Acceleration, Newtons Laws of Motion, Force and Momentum, Parallelogram of Forces, Stability and Equilibrium of bodies, Gravitation, elementary ideas of work, Power and Energy, Heat and its Effects, Sound waves and their properties, Reflection and refraction. Spherical mirrors and Lenses, Type and properties of magnet, Static and Current Electricity, conductors and Non-conductors, Ohms Law, Simple Electrical Circuits, Heating.

(c) **Mathematics.**

- (i) Algebra.
- (ii) Matrices & Determinants.
- (iii) Analytical Geometry.
- (iv) Trigonometry.
- (v) Integral Calculus.
- (vi) Differential Calculus.
- (vii) Probability and Statistics.
- (viii) Number Systems
- (ix) Fundamental arithmetical operations
- (x) Mensuration
- (xi) Area, Volume and Surface Area

(d) **Chemistry** : Physical and Chemical changes. Elements, Mixtures and Compounds, Symbols, Formulae and simple Chemical Equations, Law of Chemical Combination, Properties of Air and Water, Preparation and Properties of Hydrogen, Oxygen, Nitrogen and Carbon dioxide, Oxidation and Reduction, Acids, bases and salts, Carbon and its forms, Natural and Artificial Fertilizers, Elementary ideas about the Structure of Atom, Atomic, Equivalent and Molecular Weights, Valency.

(e) **Biology** : Basic Biology, Life Process, Study of Birds, Human Beings, Uniqueness of human body, Food and Health, Necessity of balanced diet, Wasteful Food Practices, Food Yield, Essentials for good health, Cycles of materials, Ecological balance, Living resources, Habitat and Organisms, Adaptation.

**Note:-** The above syllabus is not a comprehensive list of topics pertaining to the subject. Questions are designed to test the candidate's general awareness of the environment around him and its application to society. Questions are also designed to test knowledge of current events and such matters of everyday observation and experience as may be expected of an educated person. At times questions may be asked other than the above topics but definitely within the syllabus of CBSE.