

HELIX SCHOLARSHIP CUM ADMISSION TEST FOR 11th MEDICAL

Test Date : 5-11-2023

(for Students studying in 10th and moving to 11th Medical for NEET)

Time Duration : 1 Hr. 50 Min

HSAT SYLLABUS

Total Marks : 300

SCIENCE

Section- A : 60 QUESTIONS (240 MARKS)

- **Light – Reflection and Refraction**

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula, magnification. Refraction; Laws of refraction, refractive index. Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula ; Magnification. Power of a lens.

- **Human eye and colourful world**

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

- **Chemical reactions and equations**

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, importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.

- **Metals and non-metals**

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

- **Life processes**

Basic concepts of nutrition, respiration, transportation and excretion in plants and animals.

APTITUDE & LOGICAL REASONING

Section- B : 15 QUESTIONS (60 MARKS)

- **Alphanumeric series**
- **Blood Relations**
- **Coding-Decoding**
- **Dices**
- **Directions**
- **Arithmetic aptitude**
- **Age problems**

HSAT PATTERN

- The question paper will be of objective type in pen-paper format using OMR sheet.
- There will be 75 objective type questions. Section-A will have 60 Questions and Section-B will have 15 Questions.
- Section-A will carry 240 Marks and Section-B will carry 60 Marks. Total Question Paper will carry 300 Marks.
- Duration of Test will be 1 hour 50 minutes.
- Each question carries 4 marks for correct answer.
- There will be **NO** negative marking.