

**APPLIED SCIENCES HSSC-I****SECTION – A (Marks 10)****Time allowed: 10 Minutes**

NOTE: Section–A is compulsory. All parts of this section are to be answered on the question paper itself. It should be completed in the first 10 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q. 1 Circle the correct option i.e. A / B / C / D. Each part carries one mark.

- (i) Which of the following statements is **CORRECT**?
- A. Lightning results in reduction of Nitrogen
B. Lightning results in oxidation of Nitrogen
C. Lightning results in decomposition of Nitrogen
D. Lightning results in neutralization of Nitrogen
- (ii) What will be the focal length of a lense when its power is 20 D?
- A. 0.5 metre B. 50 metre C. 0.05 metre D. 0.20 metre
- (iii) Which of the following is a good example of bent lever?
- A. Fly wheel B. Inclined plane C. Retractor D. Pulley
- (iv) What increase in volume of water takes place when converted into steam?
- A. 1500 times B. 1700 times C. 1200 times D. 1000 times
- (v) Which of the following statements is **TRUE** about X-ray Radiation?
- A. Electromagnetic waves are of short wavelength and short frequency
B. Electromagnetic waves are of long wavelength and high frequency
C. Electromagnetic waves are of short wavelength and high frequency
D. Electromagnetic waves are of long wavelength and short frequency
- (vi) Which of the following statements is **TRUE** about iron?
- A. The loss of two electrons from iron results in ferrous
B. The loss of three electrons from iron results in ferrous
C. The loss of one electron from iron results in ferrous
D. The loss of two electrons from iron results in ferric
- (vii) Which of the following formulae refers to Vanadium?
- A. V B. Vn C. Va D. Vm
- (viii) Which of the following formulae is **CORRECT** for sugar glucose?
- A. $C_{12}H_{22}O_{11}$ B. $C_{11}H_{22}O_{12}$ C. $C_6H_{22}O_6$ D. $C_6H_{12}O_6$
- (ix) Which of the following is **CORRECT** Latin name for Tin?
- A. Natrium B. Stannum C. Ferrum D. Argentum
- (x) Which of the following compounds is Hygroscopic?
- A. $NaNO_3$ B. $Na_2SO_4 \cdot 10H_2O$
C. $MgSO_4 \cdot 7H_2O$ D. NaOH

For Examiner's use only:

Total Marks:

10

Marks Obtained:



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98

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

NOTE: Answer any thirteen parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

SECTION – B (Marks 26)

Q. 2 Attempt any THIRTEEN parts. The answer to each part should not exceed 2 to 4 lines. (13 x 2 = 26)

- (i) Write classification of Friction.
- (ii) Define **Speed**, **Velocity** and **Acceleration**. Also give their units.
- (iii) Define **Stable**, **Unstable** and **Neutral equilibrium**.
- (iv) Write two advantages of Pressure.
- (v) Define Gay Lussac's and Henry's law of fluid.
- (vi) Write three factors which affect evaporation.
- (vii) Define **Boiling Point**, **Relative Humidity** and **Dew Point**.
- (viii) Define **Ampere**, **Quantity of electricity** and **Ohm's law**.
- (ix) Define Hydrolysis reaction with one example.
- (x) Write two requirements of ORS.
- (xi) Write three fire extinguishers on the basis of chemicals.
- (xii) Write two uses of NaHCO_3 .
- (xiii) Write three pieces of information provided by a chemical equation.
- (xiv) Define **Mass number** and **Isotope** with one example of each.
- (xv) Define **Short sightedness** and **Long sightedness of vision**.
- (xvi) Define Oxidation, Reduction and give one example of Redox reaction.
- (xvii) Explain the term Threshold of hearing.

SECTION – C (Marks 14)

Note: Attempt any TWO questions. All questions carry equal marks.

(2 x 7 = 14)

- Q. 3 Write a comprehensive note on the types of radiation, their nature and characteristics.
- Q. 4 Describe the common properties of Acids and Basis.
- Q. 5 Write a detailed note on Electrostatic and Electrodynamics.