Roll No. | | | | | | |

Answer Sheet No _____

Sig. of Candidate._____

Sig. of Invigilator._____

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) Focal length of a concave lens is _____.

A. Positive B. Negative

C. Greater D. Smaller

(ii) Cooling of vapours of some compounds changes them directly into solid state. This phenomenon is called _____.

A. Evaporation B. Sublimation

C. Condensation D. Boiling

(iii) What kind of bond will be formed between two atoms of oxygen?

A. Ionic bond B. Covalent bond

C. Metallic bond D. Polar bond

(iv) What was the number of periods in the Mendeleev's periodic table?

A. 3 B. 10

C. 21 D. 12

(v) The unit of Power in system international is _____.

A. Watt B. Ampere

C. Volt D. Farad

(vi) 1 litre is equal to _____.

A. 100 ml B. 1000 cm^3

C. 10 ml D. 100 cm^3

(vii) The energy of a body produced in it due to its motion is called _____.

A. Potential energy B. Chemical energy

C. Electric energy D. Kinetic energy

(viii) Atomic mass is defined as _____.

A. Mass of protons and neutrons in an atom

B. Mass of protons in an atom

C. Mass of electrons and protons in an atom

D. Mass of neutrons in an atom

(ix) The unit of Work is _____.

A. Coulomb B. Ampere

C. Joule D. Newton

(x) When water changes into ice, it _____.

A. Contracts B. Expands

C. Becomes dense D. Remains the same

_____

For Examiner's use only:

Total Marks: 10

Marks Obtained:

APPLIED SCIENCES HSSC–I

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

(i) What does the term pH mean? Mention two methods for the measurement of pH.

(ii) Give the classification of Carbohydrates.

(iii) Write any two differences between Mixture and Compound.

(iv) Distinguish between Heat and Temperature.

(v) Define **Atomic number** and **Mass number** with example.

(vi) Describe briefly the factors that affect the solubility of a substance in a solution.

(vii) What are Isotopes?

(viii) Describe briefly the Reflection and Refraction of light.

(ix) What is meant by the strength of an acid and a base?

(x) Describe briefly the structure and classification of Proteins.

(xi) What are the causes of Friction? How is it reduced?

(xii) Define the following terms:

a. Effort b. Machine c. Efficiency.

(xiii) Name three apparatus used for measuring the volumes of liquids.

(xiv) Why are metals good conductors of electricity?

(xv) Differentiate between Ionic and Covalent bonds.

(xvi) What do you know about the latent heat of fusion of ice?

(xvii) What precautions can you take to prevent electrical accidents in hospitals?

SECTION – C (Marks 14)

Note: Attempt any TWO questions. All questions carry equal marks. (2 x 7 = 14)

Q. 3 **a.** Describe with example the neutralization and replacement reactions that take place in the human body. **04**

b. What is the importance of salts in human body? **03**

Q. 4 **a.** Discuss Conductors and Insulators. **03**

b. Explain the frequency and wavelength of a sound wave and give relationship for them. **04**

Q. 5 **a.** Describe Temperature scales and give their formulae. **03**

b. If a force of 25 N is applied to push a patient over a distance of 5 m in its direction, what will be the magnitude of the work. **04**