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) The unit of Charge is_____

A. Volt B. Ampere

C. Coulomb D. Farad

(ii) The information obtained from observation is called _____

A. Fact B. Theory

C. Principle or Law D. Knowledge of science

(iii) 1 litre is equal to_____

A. 100 ml B. 1000 cm^3

C. 100 cm^3 D. 10 cm^3

(iv) Rate of change of velocity is known as_____

A. Displacement B. Acceleration

C. Relative motion D. Distance

(v) What is the maximum number of electrons which can be accommodated in L-shell of an atom?

A. 6 B. 8

C. 32 D. 18

(vi) What will be the kinetic energy of a body if its velocity is doubled?

A. Two times B. Three times

C. Four times D. Five times

(vii) Which of the following is the unit of Work in System International?

A. Watt B. Joule

C. Newton D. Meter

(viii) The mass of an atom is_____

A. Distributed uniformly all around

B. Concentrated in the electrons

C. Concentrated in the nucleus

D. Zero as the number of protons and electrons is the same

(ix) When water changes into ice, it_____

A. Contracts B. Remains the same

C. Becomes dense D. Expands

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

A. Ionic bond B. Covalent bond

C. Metallic bond D. Polar bond

_____

For Examiner's use only:

APPLIED SCIENCES HSSC–I

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) Name two acidic and two basic substances in the human body.

(ii) What does the term pH mean? Also give two methods for the measurement of pH.

(iii) Give one example of each neutralization and replacement reactions that take place in the human body.

(iv) What is the importance of ions in the proper functioning of the human body?

(v) What are Proteins?

(vi) What are Lipids?

(vii) Name two saturated fatty acids that are abundant in the tissues of plants and animals.

(viii) What is meant by Derived units? Give examples.

(ix) What is Static electricity?

(x) How does Pressure differ from Force?

(xi) Briefly describe the Reflection and Refraction of light.

(xii) Briefly describe Convex and Concave lenses.

(xiii) Why is water not used in place of mercury in thermometers?

(xiv) Write down the uses of Hydrochloric acid.

(xv) Differentiate between Covalent and Coordinate covalent bonds.

(xvi) Why are metals good conductors of electricity?

(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	**a.**	Discuss the abundance of water. Is it essential for the human body?	3
	b.	Write down two advantages and two disadvantages of Friction.	4
Q. 4	**a.**	Describe Temperature scales. Also give their formulae.	4
	b.	A force of 250 N is required to move a patient over a distance of 1.5 metres. What is the work involved?	3
Q. 5	**a.**	Explain Frequency and Wavelength of a sound wave and give their relationship.	4
	b.	Differentiate between Natural and Artificial magnets with examples.	3