Roll No. ☐☐☐☐☐

Sig. of Candidate._____

Answer Sheet No._____

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)   Which of the following processes involves pulling apart the broken bone?

A.   Diffraction   B.   Contraction   C.   Traction   D.   Accommodation

(ii)   Which of the following is the modified form of wheel?

A.   Inclined plane   B.   Ramp   C.   Crank   D.   Screw

(iii)   On which factor, does the blood circulation largely depend?

A.   Centre of gravity   B.   Mass

C.   Density   D.   Gravity

(iv)   In which of the following diseases, ESR is normal?

A.   Sleeping sickness   B.   Leishmaniasis

C.   Allergic state   D.   Mental disease

(v)   In which of the following diseases, cold water sponge or alcohol sponge is applied?

A.   Leishmianasis   B.   Hyperpyrexia   C.   Mycoedemia   D.   Trypanosomiasis

(vi)   Which is the normal value of pH in blood?

A.   7.6   B.   6.4   C.   6.7   D.   7.4

(vii)   Which of the following statements is **TRUE** about alkali-metals?

A.   These metals are hard and brittle   B.   These metals are non-reactive

C.   Alkali metal does not form basic oxide   D.   Alkali metals are reactive, soft and ductile

(viii)   Which of the following statements is **TRUE**?

A.   Biochemical catalyst is poison   B.   Biochemical catalyst is ion exchange

C.   Biochemical catalyst is hydrolysis   D.   Biochemical catalyst is enzyme

(ix)   Which of the following is osmotic pressure of the blood?

A.   7.9 Pa   B. $8.9 \, N/m^2$ C.   37 cm of water   D.   10 atm

(x)   The scattering of light or dispersion of light by colloidal particle is called _____

A.   Tyndall effect   B.   Diffraction effect

C.   Interference effect   D.   Mesh effect

_____

For Examiner's use only:

Total Marks: ☐ 10

Marks Obtained: ☐

—— 1HA-1049——

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)   Define Suspension and Colloids.
   (ii)   Give two examples of Metals and Non-metals.
   (iii)   Name any two Indicators.
   (iv)   Name any two acids useful in nursing.
   (v)   Define Salt. Write three common salts with formula.
   (vi)   Define Electrolyte and Electrolysis with one example.
   (vii)   Define long and short sightedness.
   (viii) Define Refraction and Reflection with one example.
   (ix)   Define Boiling point and Dew point.
   (x)   Write two effects of heat.
   (xi)   List three types of Barometer.
   (xii)   Write two factors which affect the flow rate of liquid.
   (xiii) Write any two clinical application of solution.
   (xiv)   Define Density and Specific gravity with one example each.
   (xv)   Define Osmosis.
   (xvi)   Define Diffusion.
   (xvii) Write any two bad effects of friction.

SECTION – C (Marks 14)

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

Q.3   Write all possible precautions to be taken when using radioactive material.

Q.4   Write all possible precautions to be taken to prevent electrical accident in hospital.

Q.5   Write the impurities in water and the steps involved in purification of water.

—— 1HA-1049——