

Version-C**PART – B
ZOOLOGY**

HSE-I

(Maximum : 20 Scores)**Time : 1 Hour****I. Answer any 3 questions from 1 to 5. Each carries 1 score. (3×1=3)**

- Given below the scientific name of House fly. Identify the correctly written name
 a) Musca Domestica b) Musca domestica
 c) *Musca domestica* d) Musca Domestica
- Note the relationship between the first two words and write a suitable word for the fourth place.
 Respiratory rhythm centre : Medulla
 Pneumotaxic centre :
- Find the odd one and write the reason for selection
Alkaloids, Pigments, Amino acids, Lectins
- Which one of the following sets of animals share a four chambered heart?
 a) Amphibian, Reptiles, Birds b) Crocodiles, Birds, Mammals
 c.) Crocodiles, Lizards, Turtles d) Lizards, Mammals, Birds
- Name the process by which a tadpole develops into an adult frog

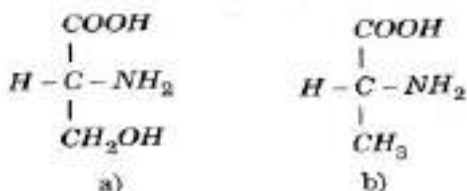
II. Answer any 7 questions from 6 to 14. Each carries 2 scores. (7×2=14)

- Frogs are beneficial for mankind, justify the statement
- a) Name any two muscles involved in breathing/Respiration?
 b) Define Vital capacity
- Match the following

Column A (Proteins)	Column B (Functions)
Collagen	Sensory reception (smell, taste, hormone, etc.)
Receptor	Intercellular ground substance
Antibody	Fights infectious agents
GLUT-4	Enables glucose transport into cells

- Mention two functions of the following :
 a) Flame cells in Platyhelminthes.
 b) Gills in Mollusca

10. Enzymes are biocatalyst which regulate various biochemical reactions in living organisms
- Name the protein portion of the enzyme
 - What happens to the catalytic activity when the cofactor is removed from the enzyme?
 - Mention any two kinds of cofactor with examples?
11. Alveoli are the primary sites of exchange of gases. O_2 and CO_2 are exchanged in these sites by simple diffusion. Name any two factors which affects rate of diffusion across this sites.
12. The molecular structure of 2 amino acids are given below Name them.



13. Identify each phylum from the characteristics given :
- Malpighian tubules are the excretory organs
 - Show alternation of generation.
 - Presence of Water transport system
 - Body consists of Head , Visceral Hump and Muscular foot
14. Classify the animals based on the presence or absence of notochord ? write any one example for each

III. Answer any 1 questions from 15 to 17. Each carries 3 scores. (1×3=9)

15. All vertebrates are chordates but all chordates are not vertebrates. Justify this statement with an example?
16. a) Name the portal system /Special venous connection present in the frog
- Between liver and intestine
 - Between kidney and lower parts of the body
- b) Write any two difference between male and female frog
17. a. Why proteins are called heteropolymers?
- b. Identify the proteins from the given list of biomacromolecule and write its functions
- (Cellulose, Starch, Antibody, Inulin)**
- c) Write an example for a protein that helps in the transport of Glucose across cell membrane