

Version-D

PART – B

ZOOLOGY

HSE-I

(Maximum : 20 Scores)

Time : 1 Hour

I. Answer any 3 questions from 1 to 5. Each carries 1 score.

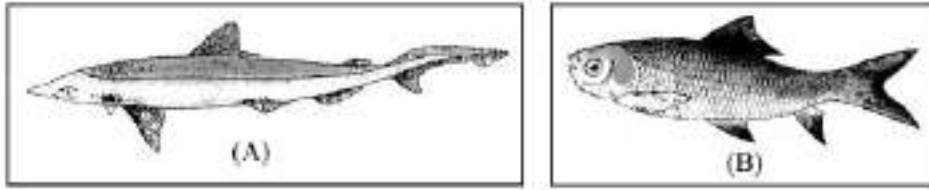
(3×1=3)

- 1 Note the relationship between the first two words and suggest suitable word for the fourth place
a) *Homo sapiens* : Man
Musca domestica :
- b) Tiger : Felidae
Dog:
- 2 In frogs, sound-producing vocal sacs are a characteristic typically associated with which sex?
- 3 An undifferentiated layer,, is present in between the ectoderm and the endoderm in diploblastic animals.
- 4 The monomer units of Polysaccharides are:
a. Amino acids b. Nucleotides c. Fatty acids d. Monosaccharides
- 5 How many pairs of cranial nerves are present in a frog?

II. Answer any 7 questions from 6 to 14. Each carries 2 scores.

(7×2=14)

- 6 When substrate concentration increases, the velocity of enzymatic reaction increases at first. After attaining a maximum velocity, it cannot be exceeded by further addition of substrates. Why?
- 7 Name the phyla in which Water transport system present? Write any two functions of the same.
- 8 Write List the major factors affecting the dissociation of oxygen from oxyhaemoglobin in the tissues?
- 9 Write the special venous connections that exist between:
a) The liver and intestine in a frog?
b) The kidneys and lower parts of body in a frog?
- 10 Figure (A) and (B) shows the fishes of two different classes. Identify and differentiate between them.



11 Classify the animals based on levels of organisation

Platyhelminthes, Porifera, Cnideria, Ctenophora, Chordata

Cellular level	Tissue level	Organ level	Organ system

12 Examples of 2 enzymatic reactions A and B are given. Identify the class of enzyme in A and B

a) **S reduced + S' oxidised → S oxidised + S' reduced (S, S'- Substrate)**

b) **S - G + S' → S + S' - G (S, S'- substrate, G-Group)**

13 Why does iodine solution turn blue in the presence of starch but not in the presence of cellulose, even though both are polysaccharides?

14 Match the following

Column A (Types of aminoacids)	Column B (Examples)
a)Acidic amino acids	i)Tryptophan
b)Basic amino acids	ii)Glutamic acid
c)Neutral amino acids	iii)Valine
d)Aromatic amino acids	iv)Lysine

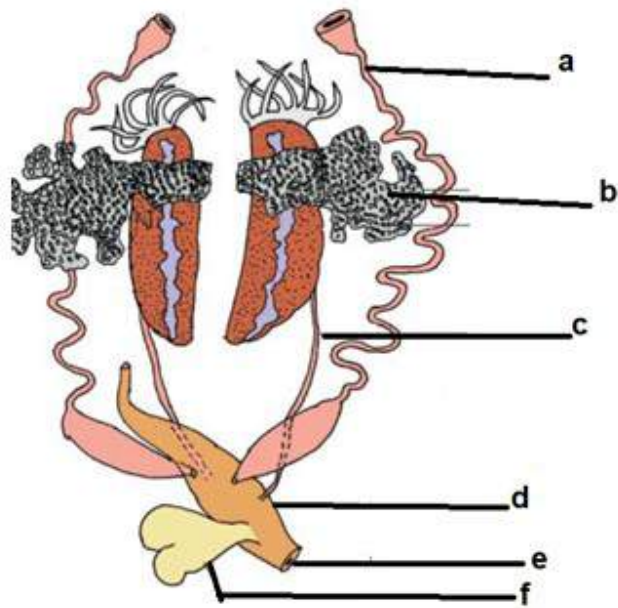
III. Answer any 1 questions from 15 to 17. Each carries 3 scores. (1×3=3)

15 The digestive system of frog is made of the following parts. Arrange them in an order beginning from mouth.

**Mouth, Oesophagus, Buccal cavity, Stomach, Intestine,
Cloaca, Rectum, Cloacal aperture**

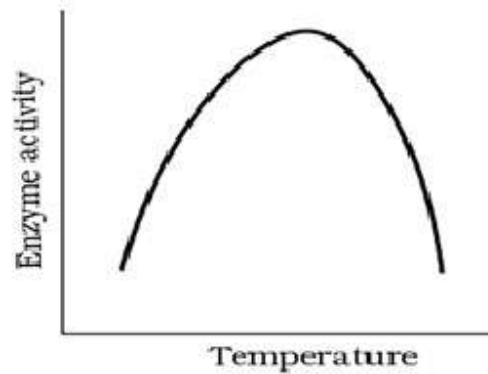
16 a) Brain of frog is enclosed in a bony structure called

b) Reproductive and Excretory system of a female frog is given below, label the parts a,b,c,d,e,and f



17 Enzymes are biological catalyst capable of promoting biochemical reactions within a living system.

- a) The chemical substance that shut off the enzyme activities are called.....
- b) Analyze the graph showing the activity of an enzyme, influenced by temperature. What you meant by optimum temperature?
- c) Why does enzyme activity declines at too low and at too high temperature?



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