PART – B

ZOOLOGY

(Maximum : 30 Scores) Time : 1 Hour

I. Answer any 3 questions from 1 to 5. Each correct answer carry 1 score. **(3 × 1 = 3)**

1. Expand

   (a) ICBN

   (b) ICZN

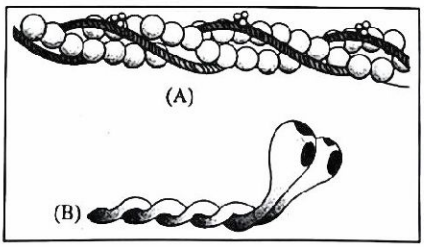
2. Give suitable terms for the given.

   (a) Respiration through skin (cuticle)

   (b) Respiration through lungs

3. Inulin is a polymer of _____ .

4. Observe the given figures A and B. Identify and name them.



5. Cerebral hemispheres are connected by a tract of nerve fibres called _____ .

II. Answer any 9 questions from 6 to 16. Each correct answer carries 2 scores.

(9 × 2 = 18)

6. Write two external features that helps to identify male and female frogs.

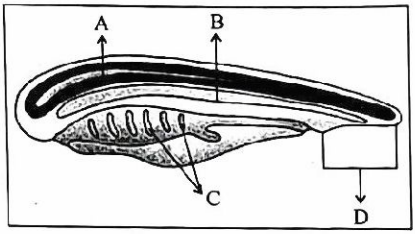
7. (a) Write the correct path of cardiac impulse.

Hints : AV Node, Purkinje fibres, SA Node, Bundle of His

(b) Why SA Node is called 'Pacemaker' ?

8. Observe the given figure and answer the questions.

Label A, B, C and D.



9. A few structures/organs of animals are listed below. Identify the phylum in which these organs/structures are present.

(a) Radula

(b) Parapodia

(c) Comb plates

(d) Calcareous ossicles

10. Differentiate chondrichthyes and osteichthyes.

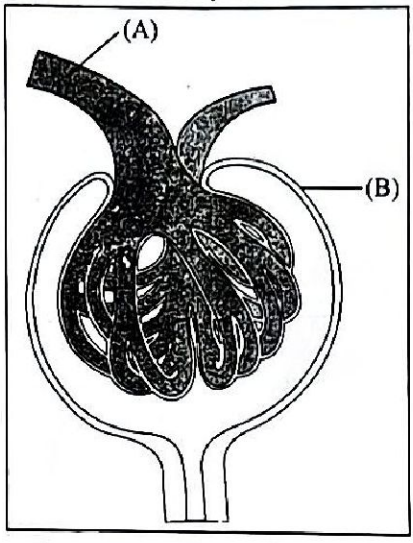
11. Complete the Table (Hints are given)

	Granulocytes		
	Neutrophil	(A)	Basophil
Percentage	60 – 65%	2 – 3%	(B) .....
Function	(C)	Allergic response	(D) .....

Hints
– Monocytes
– Eosinophil
– 20 – 25%
– Phagocytic
– Inflammatory response
– 0.5 – 1%

12. (a) In human some ribs are bicephalic. Why ?
    (b) Write the different components of Rib cage.

13. Observe the given figure and answer the questions.



    (a) Label A and B.
    (b) Differentiate cortical and juxtamedullary nephrons.

14. Name the following :

(a)	hypoglycemic hormone
(b)	hypercalcemic hormone
(c)	emergency hormone
(d)	antidiuretic hormone

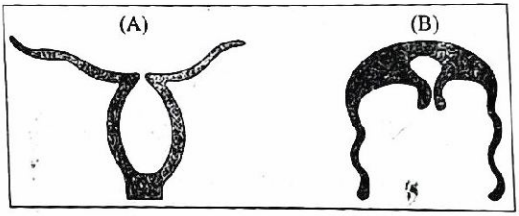
15. (a) Draw the structure of
        (i) Glycerol
        (ii) Serine
    (b) Name the given
        (iii) Most abundant protein in animal world
        (iv) Two aromatic amino acids

16. (a) Enzymes are divided into six classes. Write any two classes.

(b) What are cofactors ? What happens to enzyme activity if cofactor is removed from enzyme ?

III. Answer any 3 questions from 17 to 20. Each correct answer carries 3 scores. $(3 \times 3 = 9)$

17. Observe the given figures A and B, answer the questions.



(a) Identify body forms A and B.

(b) How will you differentiate them ?

(c) What is metagenesis ?

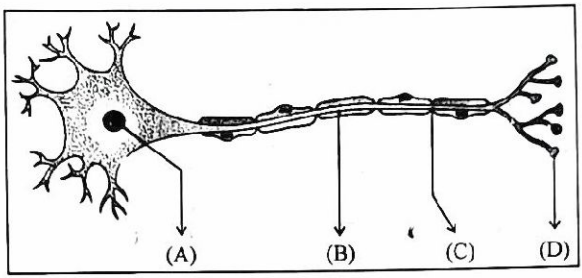
18. (a) Write the functions of

(i) Renin

(ii) ANF (Atrial natriuretic factor)

(b) Explain the role of lungs and liver in elimination of excretory wastes.

19. Observe the given figure and answer the questions.



(a) Label A, B, C and D.

(b) Write the location of

(i) Unipolar neuron

(ii) Bipolar neuron

20. Differentiate

(a) Inspiratory reserve volume and expiratory reserve volume

(b) Residual volume and functional residual capacity

(c) Expiratory capacity and inspiratory capacity