

Total No. of Printed Pages—3

3 SEM TDC ZOOH (CBCS) C 5

2 0 2 4

(Nov/Dec)

ZOOLOGY

(Core)

Paper : C-5

(Diversity of Chordata)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Fill in the blanks :

1×5=5

(a) Retrogressive Metamorphosis is found
in ____.

(b) Archaeopteryx is the connecting link
between ____ and ____.

(c) Continental drift theory was proposed
by ____.

(2)

- (d) An example of chondrichthyes is ____.
- (e) Adaptive radiation can be found in ____.

2. Write short notes on any *three* of the following : 4×3=12

- (a) General characteristics of mammals
- (b) Larval forms of protochordates
- (c) Affinities of *Sphenodon*
- (d) Echinoderm theory of origin of chordates

3. Write the general characteristics of Chondrichthyes. 6

Or

Describe the osmoregulation in fishes.

4. Write the advanced features of vertebrates over protochordata. 10

Or

Write the general characteristics of Amphibia. Classify the phylum Amphibia up to order.

(3)

5. Explain the principles and aerodynamics of flight in aves. 10

Or

Describe in brief about the flight adaptation in birds.

6. Define zoogeographical realm. Discuss the distribution of vertebrates in different realms. 2+8=10

Or

Discuss the theories pertaining to distribution of animals. 10

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3 SEM TDC ZOOH (CBCS) C 6

2 0 2 4

(Nov/Dec)

ZOOLOGY

(Core)

Paper : C-6

**(Animal Physiology : Controlling and
Coordinating Systems)**

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Fill in the blanks :

1×5=5

- (a) The process by which bone tissue is formed is called ____.
- (b) The protein that binds to calcium ions during muscle contraction is ____.
- (c) The basic unit of the nervous system is the ____.

(2)

2. Distinguish between any two of the following : $4 \times 2 = 8$

- (a) DNA and RNA
- (b) α -helix and β -pleated sheet
- (c) IgG and IgM

3. Write short notes on any two of the following : $4 \times 2 = 8$

- (a) Lineweaver-Burk plot
- (b) Biological importance of polysaccharides
- (c) Types of DNA

4. Classify carbohydrates based on their structure with examples. Write a note on glycoconjugates. $7 + 3 = 10$

Or

What are nucleotides? Describe the structural constituents of a nucleotide. What do you mean by complementary DNA? $1 + 7 + 2 = 10$

5. What is enzyme inhibition? Describe various types of enzyme inhibition with examples. $2 + 8 = 10$

(3)

Or

Classify α -amino acids based on different criteria. Write a note on general properties of α -amino acids. $6 + 4 = 10$

6. Write about the mechanism of enzyme action. What is Michaelis-Menten equation? Write its significance. Discuss the regulation of enzyme action. $3 + 4 + 5 = 12$

Or

What are triglycerides? Discuss the structure and significance of physiologically important saturated and unsaturated fatty acids. Write the biological importance of phospholipids. $1 + 8 + 3 = 12$

Total No. of Printed Pages—3

3 SEM TDC ZOOH (CBCS) C 7

2 0 2 4

(Nov/Dec)

ZOOLOGY

(Core)

Paper : C-7

(Fundamentals of Biochemistry)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Fill in the blanks :

1×5=5

- (a) The protein part of enzyme is called ____.
- (b) ____ is the only antibody that can cross the placenta.
- (c) Animals store carbohydrate in the form of ____.
- (d) ____ is the simplest amino acid.
- (e) The pentose sugar in DNA is ____.

(2)

2. Distinguish between any two of the following : $4 \times 2 = 8$

- (a) DNA and RNA
- (b) α -helix and β -pleated sheet
- (c) IgG and IgM

3. Write short notes on any two of the following : $4 \times 2 = 8$

- (a) Lineweaver-Burk plot
- (b) Biological importance of polysaccharides
- (c) Types of DNA

4. Classify carbohydrates based on their structure with examples. Write a note on glycoconjugates. $7 + 3 = 10$

Or

What are nucleotides? Describe the structural constituents of a nucleotide. What do you mean by complementary DNA? $1 + 7 + 2 = 10$

5. What is enzyme inhibition? Describe various types of enzyme inhibition with examples. $2 + 8 = 10$

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Or

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