

**2024/TDC (CBCS)/EVEN/SEM/
ZOOHCC-401T/017**

TDC (CBCS) Even Semester Exam., 2024

ZOOLOGY

(4th Semester)

Course No. : ZOOHCC-401T

(Comparative Anatomy of Vertebrates)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

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

UNIT—I

1. Answer any *two* of the following questions :

2×2=4

- (a) Define epidermis and dermis.
- (b) Mention at least four functions of integument.
- (c) Mention the important functions of visual arches in birds and mammals.

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(Turn Over)



2. Answer any *one* of the following questions : 6

- (a) What are epidermal glands? Discuss the different types of epidermal glands in vertebrates with their functions. $2+4=6$
- (b) What do you understand by appendicular skeleton? Compare the pelvic and pectoral girdle of mammal (rabbit) with reptile (lizard). $2+4=6$

UNIT—II

3. Answer any *two* of the following questions :

$2 \times 2 = 4$

- (a) Name the different digestive glands of mammal and mention their functions.
- (b) Define external and internal gills.
- (c) Mention the exact location of gallbladder. What is its function?

4. Answer any *one* of the following questions : 6

- (a) Give an account of alimentary canal in mammal with diagram. $4+2=6$
- (b) Write short notes on the following : $3 \times 2 = 6$
- (i) Respiratory organs in birds
- (ii) Accessory respiratory organs in fishes

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(Continued)

UNIT—III

5. Answer any *two* of the following questions :

$2 \times 2 = 4$

- (a) Define circulatory system. What is its main function?
- (b) What are mesonephric kidneys? In which animal mesonephric kidneys are found?
- (c) Name the different kinds of uteri found in eutherian mammal.

6. Answer any *one* of the following questions : 6

- (a) Describe the evolution of aortic arches in vertebrates with proper illustration. $4+2=6$
- (b) Write short notes on the following : $3 \times 2 = 6$
- (i) General plan of circulation in mammal
- (ii) Compare the heart of Amphibian with that of Reptiles

UNIT—IV

7. Answer any *two* of the following questions :

$2 \times 2 = 4$

- (a) Mention the important functions of nervous system in vertebrates.
- (b) What are neurons? Name the different parts of neuron.
- (c) What is cerebellum? What is its function?

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8. Answer any *one* of the following questions : 6

(a) Give a comparative account of brain in birds and reptiles. 6

(b) Write short notes on the following : $3 \times 2 = 6$

(i) Autonomic nervous system

(ii) Cranial nerves in mammal

UNIT—V

9. Answer any *two* of the following questions :

$2 \times 2 = 4$

(a) What are gustatory organs in vertebrates? What is its function?

(b) What are neuromast organs? How do they function?

(c) What are photoreceptors? Mention its functions.

10. Answer any *one* of the following questions : 6

(a) Describe the structure of eye in human with diagram. 6

(b) Write short notes on the following : $3 \times 2 = 6$

(i) Chemoreceptors

(ii) Classification of receptors

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