

**2025/FYUG/ODD/SEM/
ZOODSC-102T/331**

8. Answer any one question from the following.

- (a) Describe the digestive system of *Planaria* with suitable illustrations. Mention the different types of gills present in *Planaria* according to their position in the attachment.
- (b) Give an account on the salient features and phylogenetic significance of *Limulus*. Add a note on characteristic features of *Onychophora*.

UNIT—V

9. Answer any two questions from the following :

- (a) Mention the characteristic features of *Asteroidea*.
- (b) Mention four distinctive features of *Mollusca*.
- (c) Write a short note on *Ctenidia*.

10. Answer any one question from the following :

- (a) Describe the process of torsion and detorsion in *Gastropoda* with suitable diagram.
- (b) What do you mean by Aristotle's lantern? Describe the water vascular system in *Asterias* with suitable diagram.

2+8=10

**FYUG Odd Semester Exam., 2025
ZOOLOGY
(1st Semester)**

Course No. : ZOODSC-102T

(Diversity of Chordates)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

UNIT—I

Answer any two questions from the following : 2×2=4

- (a) What is principles of priority in taxonomy?
- (b) Define taxonomy and systematics.
- (c) Who discovered the DNA barcoding? What is its biological significance?

2. Answer any one question from the following : 10

- (a) What do you mean by binomial nomenclature? Discuss in detail the rules of binomial nomenclature. Add a note on ICZN. 1+4+5=10

(2)

- (b) What do you mean by DNA barcoding? Write an essay on the molecular taxonomy and DNA coding.

UNIT—II

3. Answer any two questions from following :

- (a) Enlist the characteristics of protochordates.
(b) Why are tunicates classified chordates?
(c) Write four distinguishing characters of chordates.

4. Answer any one question from the following:

- (a) Why is the metamorphosis in protochordates termed as retrogressive? Describe the retrogressive metamorphosis in Urochordata with suitable diagrams.

- (b) Write a note on the subphylums of Chordata mentioning their distinguishing characteristics along with examples. Add a note on the advanced features of vertebrates over protochordates.

2+8=

(3)

UNIT—III

5. Answer any two questions from the following : 2×2=4

- (a) State the difference between Agnatha and Gnathostomata along with examples.
(b) Define anadromous migration along with examples.
(c) How does Chondrichthyes differ from Osteichthyes?

6. Answer any one question from the following : 10

- (a) Define parental care. Discuss in detail. 2+8=10
(b) Define osmoregulation. Describe the process of osmoregulation in freshwater fishes with suitable illustration.

UNIT—IV

7. Answer any two questions from the following : 2×2=4

- (a) Write at least four characteristic features of order Anura.
(b) State the function of parietal eye of Sphenodon.
(c) Enlist the different types of fangs.

8. Answer any *one* question from the following :
- (a) Write a note on poison apparatus of snakes. Discuss the biting mechanism of snakes with suitable diagram. 4+6=10
 - (b) Write a note on affinities of Sphenodon and ascertain its phylogenetic position. 6+4=10

UNIT—V

9. Answer any *two* questions from the following :
- (a) What do you mean by hyperphagia? Mention its significance. 2×2=4
 - (b) Enlist the characteristics of chiropteran animal.
 - (c) Mention two mammalian and two avian characters of Ornithorhynchus.
10. Answer any *one* question from the following :
- (a) What is migration? Discuss in detail the migration in birds with suitable examples. 1+9=10
 - (b) What is patagium? What is its significance? Write an essay on echolocation of bats. 1+2+7=10

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