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(NEP-2020)

(2nd Semester)

ZOOLOGY (MAJOR/MINOR)

(Chordate Biology and Wildlife)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(SECTION : A—OBJECTIVE)

(Marks : 10)

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. Which of the following is not a defining character of animals under the phylum Chordata?

- (a) Notochord ()
- (b) Post-anal tail ()
- (c) nerve cord ()
- (d) exoskeleton ()

2. When an organism loses relatively advanced features as a result of metamorphosis, it is called

- (a) propagated metamorphosis ()
- (b) introverted metamorphosis ()
- (c) retrogressive metamorphosis ()
- (d) progressive metamorphosis ()

3. Which type of scales are found in extinct sarcopterygians?

(a) Cosmoid scales	()	(b) Ganoid scales	()
(c) Placoid scales	()	(d) Ctenoid scales	()
4. Which body part is not found in protochordates?

(a) Tail	()
(b) Skull	()
(c) Gill slit	()
(d) Notochord	()
5. Which hormone regulates metamorphosis in amphibians?

(a) Adrenocorticotrophic hormone	()
(b) Ecdysone	()
(c) Growth hormone	()
(d) Thyroxin	()
6. The inner cavity of the membranous labyrinth of *Scoliodon* composed of many calcareous bodies is called

(a) utricle	()	(b) otolith	()
(c) manomeres	()	(d) synthia	()
7. The distribution of feathers on the body of birds is called

(a) pterolysis	()	(b) hyporachis	()
(c) shaft	()	(d) umbilicus	()
8. The ability of birds to fly can be explained by

(a) law of energy	()
(b) electromagnetism	()
(c) law of motion	()
(d) Bernoulli principle	()
9. Taxon that disappears for some period from the fossil records but later reappear is

(a) Darwin taxon	()	(b) absconded taxon	()
(c) lazarus taxon	()	(d) receded taxon	()

10. Which animal species found in India is critically endangered?

- (a) Brown bear ()
- (b) Javan rhinoceros ()
- (c) Macaw ()
- (d) Moose ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write notes on *five* of the following, taking at least *one* from each Unit :

3×5=15

UNIT—I

- 1. Salient features of Chordata
- 2. Affinities of Urochordata

UNIT—II

- 3. Neoteny
- 4. Sense organs in *Scoliodon*

UNIT—III

- 5. Modes of flight in birds
- 6. Bird migration

UNIT—IV

- 7. IUCN red list
- 8. Tasmanian tiger

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer *five* of the following questions, taking at least *one* from each Unit :

10×5=50

UNIT—I

1. Give an account on the development of *Branchiostoma*.
2. Describe the metamorphosis of *Herdmania*.

UNIT—II

3. What are the different types of scales found in fishes? Explain how they help fishes in aquatic adaptation.
4. What is venom? Elaborate on the biting mechanism of a venomous snake.

UNIT—III

5. What are the different types of feathers found in *Columba livia*?
6. Elucidate the reproductive system of rabbit.

UNIT—IV

7. Discuss different threats to wildlife. How can such threats be mitigated?
8. Write an account on the roles and importance of World Wide Fund for nature.

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