

U.G. 3rd Semester Examination - 2019**ZOOLOGY**
[HONOURS]**Course Code : ZOOL(H)CC-05-T**

Full Marks : 40

Time : $2\frac{1}{2}$ Hours*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any five of the following: $2 \times 5 = 10$
- a) State two mammalian characters of monotremata.
 - b) Differentiate Schizocoelic coelom and enterocoelic coelom.
 - c) Draw a labelled diagram of cephalochordate endostyle.
 - d) Differentiate ductus caroticus and ductus arteriosus.
 - e) What are filoplumes? State its significance.
 - f) Define pedomorphosis.

[Turn over]

g) State two salient features of the order Urodela.

h) Distinguish between physostomous and physoclistous types of Swim bladder in fishes.

2. Answer any two of the following: $5 \times 2 = 10$

a) Justify the inclusion of *Balanoglossus* under non chordates in an independent phylum. 5

b) Describe the accessory respiratory organs of *Clarias* sp. and *Heteropneustes* sp. $2\frac{1}{2} + 2\frac{1}{2}$

c) Define echolocation? How does an individual bat discriminate the echos of its own call and those of the others? 2+3

d) What is retrogressive metamorphosis? State the retrogressive features in the development of *Ascidia* with suitable diagram. (2+3)

3. Answer any two of the following: $10 \times 2 = 20$

a) Describe the structure of poison gland and its associated muscles involved in the biting mechanism of a poisonous snake. Differentiate the morphological features of a poisonous and a non poisonous snakes. 6+4=10

b) Place the following animals into their respective class and subclass/order with reasons and

examples (Mention at least two salient features of each toxon):

i) *Myxine* sp.

ii) *Hyla* sp.

iii) *Sphenodon* sp.

iv) *Panthera* sp.

$$2\frac{1}{2} \times 4 = 10$$

c) Define migration. Mention the types of bird migration. State the factors controlling bird migration. How birds navigate during migration.

$$2+3+2+3$$

d) Write short notes on:

$$2\frac{1}{2} \times 4 = 10$$

i) Corpus callosum and corpus striatum

ii) Parental care in amphibia

iii) Wolffian duct and mullerian duct

iv) Significance of diestema in Rodentia