B.Sc. 3rd Semester (Honours) Examination, 2018 (CBCS)

Subject : Zoology

Paper : CC-T5

(Chordates)

Time: 2 Hours **Full Marks: 40**

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions: 2×5=10

(a) Distinguish between stomochord and notochord.

(b) What do you mean by the terms 'cyclostomata' and 'marsipobranchi'?

(c) Give two differences between Elasmobranchii and Holocephali. ½×4=2

(d) Explain the role of 'Organ of Jacobson' in Reptilia.

(e) Define Metamorphosis.

(f) Write two significant differences between Archaeornithes and Neornithes.

(g) Explain the role of tarsal spur. What is gynacomastism in monotremata. 1+1=2

(h) What do you mean by adaptive radiation?

2. Answer *any two* questions: 5×2=10

(a) Briefly define the role of different physical barriers in geographical distribution. What are sweep-stare routes. 4+1=5

(b) What is potamodromous migration? Briefly explain the process of catadromous migration in fishes. 1+4=5

(c) Enumerate the affinities of monotremata with reptiles and placental mammals. 3+2=5

(d) Describe the feeding mechanism of *Branchiostoma.*

3. Answer *any two* questions: 10×2=10

(a) What do you mean by Parental care? "Nest building and choice of site are two important criteria for parental care in Amphibia" — elaborate your answer with suitable diagram. 2+4+4=10

(b) Describe the disposition of different muscles and bones related to the poison apparatus of snakes. Explain the mechanism of biting kinetics with diagram. 3+2+3+2=10

(c) What do you mean by echolocation? Briefly explain the organs used to produce pulses in michrochiroptera. What are the different types of pulses generated by bats? Explain the echolocation mechanism by the bat to gather varied information with diagram. 1+3+2+4=10

(d) Write short notes of the following: 2·5×4=10

(i) Retrogressive changes in *Ascidia* sp.

(ii) Prong horn.

(iii) Characteristic features of Metatheria.

(iv) Advantages of accsseory respiratory organs.
