

Q.P. Code – 42247

Second Semester B.Sc. Degree Examination, April/May 2019

(RCBCS Scheme)

Zoology

**Paper II — COMPARATIVE ANATOMY AND DEVELOPMENTAL
BIOLOGY OF VERTEBRATES**

Time : 3 Hours]

[Max. Marks : 90

Instructions to Candidates : Draw neat labelled diagrams wherever necessary.

PART – A

- I. Answer any **TEN** of the following : **(10 × 2 = 20)**
1. Mention the different types of Dermal derivatives.
 2. Write a note on Fin ray in Fishes.
 3. Draw a neat labelled diagram of pelvic girdle of Frog.
 4. Compare the pancreas of Frog with Rabbit.
 5. Compare the stomach of Pigeon with Rabbit.
 6. Mention any two differences in the Heart of Fish and Frog.
 7. Trace Evolutionary trends in Aortic arches of Birds.
 8. Write a note on Pronephros.
 9. Briefly explain Tangoreceptors.
 10. What is External fertilization? Give an example.
 11. Sketch and label the Egg of chick.
 12. What is placenta? Mention Histological types of placenta.

PART – B

- II. Answer any **SIX** of the following : **(6 × 5 = 30)**
13. Explain the structure of Carapace and Plastron.
 14. Write notes on :
 - (a) Poison gland
 - (b) Sweat gland

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15. Compare the Liver of Fish with Frog.
16. Compare the Alimentary canal of Frog with pigeon.
17. Trace the evolutionary trends in the heart of Reptile and Mammal.
18. Explain the structure of mesonephric kidney.
19. Describe the mechanism of Internal fertilization in mammals.
20. Draw a neat labelled diagram of Neurula of Frog.

PART – C

III. Answer any **FOUR** of the following :

(4 × 10 = 40)

21. Compare the pectoral girdle of Frog with Rabbit.
22. With a neat labelled diagram, compare the Respiratory system of Frog and Pigeon.
23. Compare the Brain of Shark with Rabbit.
24. Explain the process of Gastrulation in Frog.
25. Describe the Hormonal control of metamorphosis in Frog.
26. Explain basic types of placenta, with neat labelled diagrams.