

**PD-385 CV-19**  
**(553) M.Sc. ZOOLOGY (THIRD SEMESTER)**  
**Examination DEC. 2020**  
**Compulsory/Optional**  
**Paper- I**

**Name/Title of Paper- COMPARATIVE ANATOMY OF VERTEBRATES**

**Time:- Three Hours**

**Maximum Marks- 080**

**Note: Answer From Both the Section as Directed. The Figures in the right-hand margin indicate marks.**

**Section-A**

- 1. Answer the following questions:** **1x10**
- (a) Which is the earliest known amphibian?
  - (b) Write the main difference between Lacertilia and Ophidia.
  - (c) Write the name of gland participate in synthesis of vitamin D?
  - (d) Write the name of first feather which develop in birds?
  - (e) What is Foramen of Panizzae?
  - (f) Write three main difference between elasmobranch and teleost fishes.
  - (g) Prepubis is the characteristic feature of which bone?
  - (h) Cotyloid bone is the characteristic feature of which bone.
  - (i) Write the type of uterus present in Pig, cattle etc.
  - (j) In Mammalian brain the four optic lobes are collectively called as....?
- 2. Answer the following short-answer type questions:** **2x5**
- (a) Write the salient feature of apoda and give example.
  - (b) Explain the uropygeal gland and its function.
  - (c) Write the names of non-placoid scales with examples.
  - (d) Explain the structure of pectoral girdle of fowl. How foramen of triosseum is form?
  - (e) Write the name (in sequence) of cranial nerves of fishes.

**Section-B**

**Answer all questions:** **15x4**

- 3. Give an account of origin of amphibia.**

**Or**

Classify the class amphibian up to orders with suitable examples.

- 4. Draw labeled diagrams and give a comparative account of skin of fish, amphibia, bird and mammal.**

**Or**

Describe the evolution of aortic arches in Chordates.

- 5. Give an account of pectoral girdle of amphibian, reptile, bird and mammal. Write the main differences between them.**

**Or**

Describe the structure of lungs in amphibian, reptile, bird and mammal.

- 6. Give an account of brain in vertebrates.**

**Or**

Draw labeled diagrams of female genital system of amphibian, reptile, bird and mammal and. Write their salient features.