

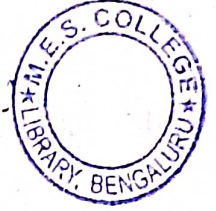


SM – 394

IV Semester B.Sc. Examination, May/June 2018  
(CBCS) (Fresh + Repeaters) (2015-16 and Onwards)

**ZOOLOGY – IV**

**Comparative Anatomy, Cell Biology, Immunology and Histology**



Time : 3 Hours

Max. Marks : 70

**Instructions :** 1) Draw diagrams *wherever* necessary.  
2) Answer should be **completely** in **Kannada** or **English**.

**PART – A**

I. Answer **any five** of the following :

**(5×3=15)**

- 1) Sketch and label the cycloid scale.
- 2) Enumerate any three differences between the amphibian and avian respiratory system.
- 3) Write a note on swim bladder.
- 4) List any three functions of endoplasmic reticulum.
- 5) Define (a) Apoptosis (b) Metastasis.
- 6) Sketch and label the pancreatic acinus.
- 7) Write a note on splenic pulp.

**PART – B**

II. Answer **any five** of the following :

**(5×5=25)**

- 1) Give an account of the epidermal derivatives of mammalian skin.
- 2) Compare and comment on the anatomical features of Piscean and mammalian heart.
- 3) Draw a neat labelled diagram of mammalian eye.
- 4) With the help of a neat labelled diagram. Describe nucleus.
- 5) What is artificial parthenogenesis ? Add a note on its significance.
- 6) Write notes on (a) NKCs (b) Interferons.
- 7) Explain the structure of graafian follicle with a neat labelled diagram.



PART – C

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

(3×10=30)

- 1) Give the evolutionary trends of aortic arches of reptiles and birds with illustrations.
  - 2) With diagrams, give the comparative account of the brain of pisces and amphibia.
  - 3) Describe the fluid mosaic model of plasma membrane with a diagram.
  - 4) Give an account of prevention and regulation of cancer.
  - 5) Write notes on :
    - a) Metanephric kidney
    - b) Giant chromosomes.
  - 6) Describe the histology of stomach with the help of a neat labelled diagram.
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