



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) NKC's (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.

PART - B