



MS – 334



IV Semester B.Sc. Examination, May 2016
(Fresh) (CBCS) (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) Answers should be either in **Kannada** or **English**.

PART – A

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

(5×3=15)

- 1) Sketch and label the Placoid scale.
- 2) Comment on the origin of lungs.
- 3) Define the terms :
 - a) Diffusion
 - b) Osmosis
 - c) Phagocytosis.
- 4) Write short notes on artificial parthenogenesis.
- 5) What is apoptosis ? Give any two reasons for *in situ* apoptosis.
- 6) Name the types of Lingual Papillae.
- 7) Mention any three secretory cells of gastric glands with their functions.

P.T.O.



PART – B

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

(5×5=25)

- 1) Compare and comment on the skin of amphibian and mammal (diagrams not required).
- 2) Give the evolutionary trends in the aortic arches of reptiles.
- 3) Draw a neat labelled sketch of V.S. of bird eye and comment on its evolutionary significance.
- 4) Explain the structure and function of Golgi apparatus.
- 5) Describe the structure of lamp brush chromosomes with a neat labelled diagram.
- 6) What are carcinogens ? Explain any two types.
- 7) With a neat labelled diagram of T.S. of mammalian thyroid gland describe the histology.

PART – C

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

(10×3=30)

- 1) Compare and comment on the heart of an Amphibian and a Mammal with labelled sketches.
 - 2) Give an account on types of kidneys in vertebrates.
 - 3) Explain the evolutionary trends in the brain of anamniotes.
 - 4) With a neat labeled diagram describe the fluid mosaic model of plasma membrane.
 - 5) Explain the role of B and T cells in body immunity.
 - 6) Describe the histology of mammalian pancreas with a neat labelled diagram.
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