US – 379

VI Semester B.Sc. Examination, May 2017
(CBCS) (Freshers) (2016-17 and Onwards)
ZOOLOGY (Paper – VIII)
Animal Physiology and Techniques in Biology

Time : 3 Hours

Max. Marks : 70

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

PART – A

I. Answer **any five** of the following : **(5×3=15)**

1) State the function of :
   a) Gastrin
   b) Cholecystokinin
   c) Secretin.
2) Write a note on Acromegaly.
3) What is Root effect ? Write its significance.
4) List the hormones of Islet of Langerhans with one function each.
5) Mention the main excretory product of :
   a) Amphibian tadpoles
   b) Reptiles
   c) Mammals.
6) List any three applications of chromatography.
7) Comment on the use of alcohol in microtechnique.

PART – B

II. Answer **any five** of the following : **(5×5=25)**

1) Schematically represent ornithine cycle and explain.
2) Explain transport of oxygen.
3) Define synapse. Explain the chemical synaptic transmission.

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4) What are homeotherms ? Explain the methods of heat gain in homeotherms.
5) Write notes on :
   a) Jaundice
   b) Hyperacidity.
6) Explain osmoregulation in catadromous fishes.
7) Give the principles of :
   a) Electrophoresis
   b) Phase contrast microscope.

PART – C

III. Answer **any three** of the following : **(3×10=30)**

1) With reference to physiology of vision, explain :
   a) Accommodation
   b) Visual cycle.
2) Describe the ultrastructure of skeletal muscle with supporting diagrams.
3) Discuss the functions of thyroid gland. Add a note on its hyper secretion.
4) Discuss the feedback mechanism with reference to adrenal secretion.
5) What is oxygen dissociation curve ? Explain the influence of the following on it :
   a) Carbon dioxide
   b) Organic phosphate compounds
   c) Temperature
   d) Body size.
6) What are respiratory pigments ? Give an account of the major types.
