U.G. 4th Semester Examination - 2020

ZOOLOGY

[GENERIC ELECTIVE]

Course Code : ZOOL-H-GE-T-04

Full Marks : 40   Time : $2\frac{1}{2}$ Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any **five** of the following :   2×5=10

   a) Mention the function of Parietal and Chief cells of the stomach.

   b) Mention the site of secretion of somatostatin and cholecystokinin in the digestive tract.

   c) What is the role of antidiuretic hormone in the formation of concentrated urine?

   d) Which provides ATP during muscle contraction?

   e) What is the importance of acetylcholinesterase in muscle cell contraction?

   f) Why the action potential is an all-or-none phenomenon?

   g) What do you mean by countercurrent mechanism?

   h) What is Km of an enzyme?

2. Answer any **two** of the following: 5×2=10

   a) 'The posterior pituitary is not really an endocrine gland' – justify this statement.

   b) Describe the major events and outcomes of glycolysis.

   c) How amino acids oxidised for energy? Describe the process briefly.

   d) What are enzyme inhibitors? Discuss competitive and non-competitive inhibition.

3. Answer any **two** of the following: 10×2=20

   a) Indicate the relationship of the sarcomere to the myofilament. Explain the sliding filament theory of contraction with proper labelled diagram.   2+6+2=10

   b) How partial pressure of oxygen influence on haemoglobin saturation? Describe the process of carbon dioxide transport from the tissue cells to lung.   3+7=10

   c) Describe the location of the following glands: thyroid, parathyroid, pancreas and adrenal in our body and list the name of the hormones produced by each organ in a tabular form.   4+6=10

   d) Describe the role of LH and FSH in uterine cycle.   5+5=10

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