RMV

SH-III/Zoology/CC-T6/18

B.Sc. 3rd Semester (Honours) Examination, 2018 (CBCS)

Subject : Zoology

Paper : CC-T6

(Animal Physiology: Controlling and Coordination Systems)

Time: 2 Hours **Full Marks: 40**

The figures in the margin indicate full marks.

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

Group-A

1. Answer *any five* questions: 2×5=10

(a) State any two properties of action potential.

(b) Why blood cells are called formed elements?

(c) What is synaptic delay? Write the main cause behind it.

(d) Write the functions of Leydig cells.

(e) What is sesamoid bone? Mention its location in the body.

(f) Why muscle cells are called syncitium?

(g) What is trophic hormone? Give example.

(h) Which part of the brain releases GnRH? Write its function.

Group-B

Answer *any two* questions: 5×2=10

2. What is pseudostratified epithelium? Give histological structure and distribution of this tissue. 1+(3+1)=5

3. Name two hormones secreted from the thyroid gland. Mention their functions (at least two for each hormone). 1+4=5

4. What is second messenger? Describe the mode of action of any second messenger. 1+4=5

5. Define reflex action. Describe any type of reflex action with example. 1+(3+1)=5

Group-C

Answer *any two* questions: 10×2=20

6. What is sarcomere? Why are A-band and I-band are appeared in striated muscle? Describe the mechanisms of skeletal muscle contraction with diagram. 1+2+(5+2)=10

7. Mention different types of endocrine cells of pancreas and name the hormones released from these cells. What is diabetic coma? Write the functions of Adrenaline hormone. Describe the mechanism of action of a steroid hormone. 2+1+2+5=10

8. What is resting membrane potential? Describe the mechanism of synaptic transmission through a chemical synapse with proper diagram. Write the differences between cartilage and bone. 2+5+3=10

9. Difference between estrus and menstrual cycle? Describe menstrual cycle with proper diagram. State the role of chorionic gonadotropin during pregnancy. 2+(4+2)+2=10