



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours 3rd Semester Examination, 2020, held in 2021

**ZOOACOR06T-ZOOLOGY (CC6)**

**PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

1. Answer any **eight** questions from the following: 2×8 = 16
- (a) What is basal lamina?
  - (b) Define sarcomere.
  - (c) Give example of one glycoprotein hormone and one tyrosine-containing hormone.
  - (d) What is node of Ranvier?
  - (e) Distinguish between Basophils and Acidophils with one example of each.
  - (f) How does fibrocartilage differ from hyaline cartilage?
  - (g) What is corpus luteum?
  - (h) Differentiate between smooth and striated muscle.
  - (i) What is neurotransmitter? Give example.
  - (j) Where do you find yellow elastic connective tissue?
  - (k) What is transitional epithelium? Give example.
  - (l) Name a hormone affecting BMR.
2. Answer any **three** questions from the following: 3×3 = 9
- (a) Classify and describe different types of epithelial tissue. 3
  - (b) Where do you find sertoli cells? State their functions. 2+1
  - (c) How action potential is generated in a neuron? 3
  - (d) Compare the two types of bone with respect to structure and location. 3
  - (e) Enumerate the histology of endocrine pancreas with diagram. 3

3. Answer any *three* questions from the following: 5×3 = 15
- (a) State briefly the ultrastructure of skeletal muscle with labelled diagram. 3+2
  - (b) Describe the structure of neuromuscular junction with suitable diagram. 3+2
  - (c) State the mechanism of action of steroid hormone with illustration. 5
  - (d) Describe the histological structure of mammalian seminiferous tubule with a labelled diagram. 3+2
  - (e) Illustrate Haversian system of a mature mammalian bone with a labelled diagram. 3+2

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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