



WEST BENGAL STATE UNIVERSITY  
B.Sc. Honours 3rd Semester Examination, 2022-23

ZOOACOR06T-ZOOLOGY (CC6)

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) State two functions of Sertoli cells.
  - (b) What is areolar connective tissue?
  - (c) What is motor end plate?
  - (d) What do you mean by hypothalamo-hypophyseal portal system?
  - (e) What is effector? Name the effector of cAMP and DAG.
  - (f) What is C<sup>19</sup> steroid?
  - (g) Name a peptide hormone secreted from thyroid gland and the cell from which it is secreted.
  - (h) What is oocyte maturation inhibition factor?
  - (i) Mention the function of calmodulin.
  - (j) Which epithelial tissues line the interior of blood vessels and lining of oviduct respectively?
  - (k) Distinguish between osteomalacia and osteoporosis.
  - (l) Mention different constituents of bone matrix.
2. Answer any **three** questions from the following: 3×3 = 9
- (a) What are reflexes? Discuss your opinion on whether reflexes are a more primitive or more advanced features of human nervous system. 1+2
  - (b) Mention the role of troponin, actin and tropomyosin in muscle contraction. 1+1+1
  - (c) Briefly explain the development of graafian follicle and the role of gonadotropins in this process. 1  $\frac{1}{2}$  + 1  $\frac{1}{2}$
  - (d) What are the two hormone producing cells in testis? Distinguish between primary spermatocytes and secondary spermatocytes. 1+2
  - (e) What is astrocyte? Mention different types of connective tissue. 1+2
3. Answer any **three** questions from the following: 5×3 = 15
- (a) Describe mechanism of bone reabsorption. What do you mean by primary bone and secondary bone? 2+3
  - (b) What is refractory period? State the ionic basis of the generation of action potential. 2+3
  - (c) State the features of three types of cartilages and mention the places where they are found in the body. 5
  - (d) What are corticosteroids? Mention the layers of adrenal gland from which they are secreted. What is primary aldosteronism? 1+2+2
  - (e) What is antrum? What do you mean by polyspermy? How polyspermy is prevented? 1+1+3