



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 3rd Semester Examination, 2019

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) What are C-cells?
 - (b) What are absolute and relative refractory periods?
 - (c) What are chondroblasts?
 - (d) What is Schwann cell? State its function.
 - (e) What do you mean by paracrine signalling?
 - (f) Define resting membrane potential.
 - (g) Which endocrine gland is present only during pregnancy? Name two hormones produced by it.
 - (h) What do you mean by pseudo-stratified epithelium?
 - (i) Name the receptor type that interacts with steroid hormones. State one unique feature of it.
 - (j) Name the chromophil cells found in anterior pituitary and name one secretory product of each of these cells.
 - (k) Which type of cartilage is most abundant in human body? State one unique feature of it.
 - (l) How do compact bone and spongy bone differ?

2. Answer any **three** questions from the following: 3×3 = 9
 - (a) What do you mean by reflex action and reflex arc? 3
 - (b) Write a note on lateral specialization of epithelial tissue. 3
 - (c) Name the most abundant connective tissue of human body. Draw a labelled diagram of adipocyte. 1+2
 - (d) What is the difference between myelinated and non-myelinated nerve fibres? 3
 - (e) Describe a mature Graafian follicle with a labelled diagram. 2+1
 - (f) What do you mean by excitation-contraction coupling? Explain briefly. 3
 - (g) Mention the ultrastructure of chemical synapse. 3

3. Answer any **three** questions from the following: 5×3 = 15
 - (a) Classify hormones on the basis of their chemical nature. 5
 - (b) Why is pituitary considered as master gland? Discuss briefly the role of hypothalamo hypophyseal axis in regulating reproductive functions in human. 1+4
 - (c) Discuss Haversian system of a typical matured mammalian bone. 5
 - (d) Discuss the roles of sodium and potassium ions in the propagation of action potential. 5
 - (e) Write short notes on: 2 $\frac{1}{2}$ + 2 $\frac{1}{2}$
 - (i) Sarcomere, (ii) Na-K pump.

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