

2022

ZOOLOGY — HONOURS

Paper : CC-6

Full Marks : 50

The figures in the margin indicate full marks.

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

Answer *any ten* questions.

1. Describe any three types of cartilages with proper diagram. 3+2
2. Describe neuromuscular junction with suitable diagram. 3+2
3. Draw and describe the mechanism of impulse propagation through chemical synapse. 2+3
4. Give a brief account of the role of actin and myosin in muscular contraction with suitable diagram. 3+2
5. Write short notes on the following (*any two*) : 2½×2
 - (a) Electrical synapse
 - (b) Areolar tissue
 - (c) Haversian system
 - (d) Red and white muscle fibre.
6. (a) Describe the role of Na⁺ – K⁺ ATPase pump in impulse propagation.
(b) Write two important differences between collagen fibre and elastic fibre. 3+2
7. State the process of iodine uptake and storage in thyroid gland with a schematic diagram. 2½+2½
8. Describe the histological structure of anterior pituitary gland and mention the names of hormones released by each cell type. 3+2
9. Give a brief account of signal transduction pathway of any one non-steroidal hormone. 5
10. Mention the names of different placental hormones and state their functions. 2+3
11. Describe the role of estrogen and progesterone in maintaining menstrual cycle. 2½+2½

Please Turn Over

12. Distinguish between (*any two*) :

2½×2

- (a) Steroid and non-steroid hormone
- (b) Estrous and menstrual cycle
- (c) Bone and cartilage.

13. Classify epithelial tissue according to shape of the cells with example.

5

14. Compare the three cortical zones of adrenal gland with reference to structural and functional aspects.

5

15. (a) Mention the location and function of Leydig cells and Sertoli cells.

(b) What is primary ossification centre?

(½+1)×2+2
