

**2021**

**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. What are the different types of epithelial tissues? Mention specific location of each type. 2½+2½
2. Write about the role of different cells in ossification. Distinguish between spongy and compact bone. 3+2
3. Describe the changes that occur during repolarization and depolarization in a nerve fibre. 2½+2½
4. Briefly describe the histological characteristics of adrenal cortex. Name the hormones secreted from each zone. 4+1
5. Draw and describe the histological features of Graafian follicle. 2+3
6. Mention the site of secretion and one important function of each of the following : 5
  - (a) Calcitonin
  - (b) Prolactin
  - (c) Oxytocin
  - (d) Gonadotropin releasing hormone
  - (e) Epinephrine.
7. Mention structural and functional differences between myelinated and non-myelinated nerve fibres. Name two glial cells with their functions. 3+2
8. (a) Mention the functions of areolar tissue.  
(b) State the role of calcium in muscle contraction. 2+3
9. Name different cell types of endocrine pancreas. Mention the hormones secreted from each type. 5
10. Describe the ovarian and uterine changes during proliferative phase of menstrual cycle. 2½+2½

**Please Turn Over**

11. Describe the signal transduction pathway of any steroid hormone. 5
12. Describe the histological features of mammalian testis. 5
13. Classify hormones according to their chemical nature with example from each type. 5
14. (a) Name any two placental hormone and mention their functions.  
(b) What are chromaffin cells? 3+2
15. (a) Distinguish between striated and non-striated muscle.  
(b) Write the special features of cardiac muscle. 3+2
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