

**2021**

**ZOOLOGY — HONOURS**

**Sixth Paper**

**(Unit - I)**

**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** of the following.

1. Describe the mechanism of action of a hormone using cAMP as second messenger. 5
  2. Write short note on role of SCN in controlling biological rhythm. 5
  3. State the role of insulin in glucose homeostasis. 5
  4. Distinguish between Estrous cycle and Menstrual cycle. 5
  5. Discuss the role of ecdysone and bursicon in metamorphosis in insects. 5
  6. State the role of parathormone in calcium homeostasis. 5
  7. What is sex reversal in fish? Name two environmental factors that regulate it. 3+2
  8. Write the steps involved in synthesis of thyroxine in thyrofollicular cells. 5
  9. What are endocrine disruptors? Mention its type with examples. 2+3
  10. Distinguish between steroid hormone receptor and protein hormone receptor. 5
  11. Describe the chemical basis of bioluminescence in insects. 5
  12. What is feedback mechanism? Explain with an example. 2+3
  13. Describe the ovarian, uterine and hormonal changes during follicular phase of menstrual cycle. 5
  14. State the source and function of Secretin and CCK-PZ. 5
  15. What are catecholamines? Write the steps involved in synthesis of adrenalin from dopamine. 2+3
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