

**2021**

**ZOOLOGY — HONOURS**

**Paper : DSE-B-1**

**(Endocrinology)**

**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. (a) Why ADH is referred as a neurohormone?  
(b) State the role of ADH in reabsorption of water in renal tubules. 2+3
2. Write down important functions of prolactin in birds. 5
3. Describe the IP<sub>3</sub> – DAG pathway of any one hormone's action. 5
4. State in brief the role of parathormone and Vit D<sub>3</sub> in calcium homeostasis. 3+2
5. Write short notes on :  
(a) Grave's disease  
(b) Functions of Melanotropin in Teleost fishes and Reptiles. 2+(1½+1½)
6. Discuss the Hypothalamo-Hypophyseal-Gonadal axis in female. 5
7. State the principle and steps of competitive ELISA with an example. 2+2+1
8. Discuss the role of glucagon on glycogenesis and neoglucogenesis. 2½+2½
9. Mention important functions of thyroid hormones. 5
10. (a) Write the histological features of adrenal cortex.  
(b) Name one amine and one glycoprotein hormone. 3+2
11. Describe schematically the mechanism of action of any steroid hormone. 5
12. Mention the name and characteristics of different stages of estrous cycle. 5
13. Draw and describe the histological features of Graafian follicle. 2+3

**Please Turn Over**

14. Write the name of different cell types present in anterior pituitary. Name the hormones secreted from each cell type and one function of each hormone. 5
15. Mention the source and functions of following hormones :  $2\frac{1}{2}+2\frac{1}{2}$
- (a) Inhibin
  - (b) Epinephrine.
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