

2020

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 **question no. 1** and **any four** questions from the rest.

1. Answer **any fifteen** questions : 2×15
- (a) Mention the cause and symptom of Grave's disease. 1+1
 - (b) Give example of peptide hormone and steroid hormone. 1+1
 - (c) State four important characters of hormones.
 - (d) What are neurohormones? Give two examples.
 - (e) Name the hormones secreted from 'α' and 'β' cells of the pancreas. Mention one function of each.
 - (f) State two important functions of oxytocin.
 - (g) Name any two hypothalamic nuclei and state their functions.
 - (h) Distinguish between type I and type II diabetes mellitus.
 - (i) What are thyrotrophs? State their functions.
 - (j) Write the significant role of prolactin in fish and amphibia.
 - (k) Compare autocrine and paracrine secretions.
 - (l) Mention the source and functions of parathormone.
 - (m) What is the significance of hypothalamo-hypophyseal portal system?
 - (n) State any two functions of sertoli cells.
 - (o) Write the full form of SON and PVN of hypothalamic nuclei.
 - (p) Mention two functions of melanotropin in fish.
 - (q) State the role of thyrocalcitonin on bone.
 - (r) What do you mean by spontaneous ovulators? Give example.
 - (s) Mention the behavioural changes during estrus.

Please Turn Over

- (t) State the role of glucagon in glycogenolysis.
- (u) Give two examples of C19 steroid hormones.
- (v) What is corpus albicans?
- (w) Why pituitary gland is called the 'master gland'?
- (x) Name the major estrogens. Which is the principal one among them? 1½+½
2. State the two functions of insulin on the following targets :
- (a) Adipose tissue
- (b) Liver. 2½+2½
3. Describe briefly the mechanism of steroid hormone action with any one example. 4+1
4. Define LH surge. Mention the significance of LH surge. 2+3
5. State the location and function of the following :
- (a) Leyding cell
- (b) Chromaffin cell. 2½×2
6. What is diabetes insipidus? How does it differ from diabetes mellitus? 2+3
7. What is feedback mechanism? Illustrate with suitable example. 2+3
8. Discuss the endocrine control of Hypothalamo - Hypophyseal - Gonadal Axis in male. 5
9. Draw and describe the process of Sandwich ELISA. 5
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