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.

(t) State the role of glucagon in glycogenolysis.

(u) Give two examples of C19 steroid hormones.

(v) What is corpus albicaus?

(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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