

2022

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 five** questions : 2×5
- (a) What do you mean by paracrine secretion? Give one example.
 - (b) What are neurohormones? Give two examples.
 - (c) What is an orphan receptor?
 - (d) State the full form of PVN and SON.
 - (e) Name one hyperglycaemic hormone and mention its site of synthesis.
 - (f) What is folliculogenesis?
 - (g) Mention the source and function of aldosterone.
 - (h) Distinguish between proestrous and estrous stage.
2. (a) Draw and describe the histological features of a typical thyroid follicle.
(b) What is hypothalamo-hypophyseal portal system?
(c) State two functions of Sertoli cells. (2+3)+3+2
3. (a) Distinguish between NIDDM and IDDM.
(b) State the principle of ELISA. Mention two enzymes used in the process.
(c) State the location and function of chromaffin cells. 4+(2+2)+2
4. (a) State the cause and symptoms of Graves' disease.
(b) Elucidate the hypothalamo-hypophyseal gonadal axis in male.
(c) Define second messenger. Give examples. (2+2)+4+2
5. (a) Discuss the role of thyrocalcitonin in calcium homeostasis.
(b) State two advantages of RIA over ELISA.
(c) Draw and describe the structure of a seminiferous tubule. 4+2+4

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6. (a) Discuss the role of insulin on glycogenesis and neoglucogenesis. 5+5
(b) Elucidate briefly the process of Sandwich ELISA.
7. (a) Discuss the mechanism of hormone action using cAMP as the second messenger.
(b) What is positive feedback mechanism?
(c) State the functions of prolactin in birds. 5+3+2
8. (a) Mention the functions of Melanotropin in Reptiles.
(b) Distinguish between acidophils and basophils of adenohipophysis. Give one example of each type and state their function.
(c) Mention the sources and function of inhibin in male. 2+(2+2+2)+2
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