

**TDC Odd Semester Exam., 2020
held in July, 2021**

ZOOLOGY

(Honours)

(3rd Semester)

Course No. : ZOOH-301

(**Physiology and Endocrinology**)

Full Marks : 35

Pass Marks : 12

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. (a) What is rheoreceptor? 1
(b) What are rhodopsin and iodopsin? 2
(c) Explain with suitable diagram the different types of mechanoreceptors in mammal and state their functions. 4
2. (a) What are perilymph and endolymph? 2

- (b) Name the bony ossicles of middle ear. 1
(c) Describe with suitable diagram the internal ear of mammal. 4

UNIT—II

3. (a) What is Schwann cell? 1
(b) What is oscilloscope? 2
(c) Explain the mechanism of conduction of nerve impulse through the nerve fibre. 4
4. (a) What is synapse? 1
(b) What are neurotransmitters? 2
(c) Describe the mechanism of transmission of nerve impulse through synapse. 4

UNIT—III

5. (a) What is sarcomere? 1
(b) What is muscle fatigue? 2
(c) Describe the mechanism of contraction of skeletal muscle with suitable diagram. 4

(3)

6. (a) What is muscle treppe? 2
(b) What is muscle twitch? 2
(c) What do you mean by isotonic and isometric contractions of muscle? 3

UNIT—IV

7. (a) What do you mean by MIT and DIT? 1
(b) What is thyroglobulin? 1
(c) Explain with suitable diagram the histological structure of thyroid gland and state the biological functions of its hormones. 3+2=5
8. (a) What is TCT? 1
(b) What do you mean by hypophysectomy? 2
(c) Name the hormones secreted from adrenal medulla and explain the histological structure of adrenal cortex. 1+3=4

UNIT—V

9. (a) Name two gastrointestinal hormones. 1
(b) What is ICSH? What is its function? 2
(c) Describe endocrine control of ovarian function in mammal. 4

(4)

10. (a) What is the difference between peptide and steroid hormones? 2
(b) What is secondary messenger? Describe the mechanism of peptide hormone action. 1+4=5
