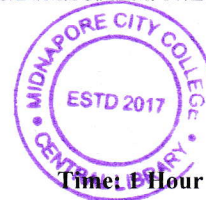


PG (CBCS)
M.SC. Semester- IV Examination, 2026
ZOOLOGY
PAPER: ZOO 404
(NEUROENDOCRINOLOGY)



Full Marks: 20

The figures in the right-hand margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

GROUP-AAnswer any **TWO** of the following questions: 2×2=4

1. Name the predominant excitatory and inhibitory neurotransmitters of the brain and the spinal cord, respectively.
2. State the role of the neurohormones bursicon and eclosion in insects.
3. Cite an example of first-order neuroendocrine integration in animal kingdom.
4. Compare the characters of electrical and chemical synapse.

GROUP-BAnswer any **TWO** of the following questions: 2×4=8

5. Tabulate the differences between the structure, secretory activity and function of ordinary neurons and neurosecretory cells.
6. How does the functioning of neuropeptides differ from that of the neurotransmitters? Exemplify neuropeptides. 3+1
7. Describe the structure and mode of functioning of a metabotropic receptor.
8. Elucidate the difference between sodium channel and potassium channel with proper diagram.

GROUP-CAnswer any **ONE** of the following questions: 1×8=8

9. Tabulate the differences between type-1 and type-2 diabetes mellitus with respect to various clinical features. Write a note on the cause, symptoms and control of Addison's disease. 5+3
10. a. Elaborate the role of calcium in the release of neurotransmitters. 4+4
b. Name the neuroendocrine glands in crustacea.

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