

Time: 2½Hrs

Total Marks – 60

Instructions:

1. All questions are **compulsory**.
2. **Figures** to the **right** indicate **full** marks.
3. Draw **neat & labeled** diagrams wherever **necessary**.

Q.1. With reference to evolution of invertebrate brain describe the organisation of behaviour in Hydra, C.elegans and Aplysia. 12

OR

Q.1. Discuss the evolution of vertebrate brain. Add a note on functional specialisation of cortical areas. 12

Q.2 Explain how disruption of CREB protein activity blocks long term memory storage process. 12

OR

Q.2 With reference to experiments conducted in Aplysia discuss homo-synaptic process and hetero-synaptic process. 12

Q.3 With reference to learning and memory explain the qualitative and temporal categories of memory. 12

OR

Q.3 Discuss the role of prefrontal cortex during attentional process. 12

Q.4 Explain the term Lateralization of brain function. Add a note on Roger Sperry's study on split-brain patients. 12

OR

Q.4 With a simple diagrammatic sketch explain the areas associated with ((1) Spoken words (2) Word association. 12

Q5. Write short notes on : (any two) 12
a) Conditional and unconditional stimulus b) Aphasia c) Bird song neural circuit
d) Mirror neurons.
