Section—A

1. Answer the following in about *150* words each : 12×5=60

(a) Draw labelled sketches of Alima and Phyllosoma larvae. Identify the neuro-endocrine factors that cause meta-morphic changes in them.

(b) Compare the structure and function of uricotelic and ureotelic kidney with suitable examples and diagrams.

(c) Differentiate between pheromones and hormones. How do they help in communication and behaviour?

(d) What are the evidences against the traditional concept that pituitary gland is the 'master of endocrine orchestra'? Highlight the current concept on this endocrine gland.

(e) "Birds are glorified reptiles." Justify the statement.

2. *(a)* Give an illustrated account of interaction of neuroendocrine secretions in promoting metamorphosis in an orthopteran and a lepidopteran insect. Mention the type of metamorphosis that these insects undergo. 20

(b) What is torsion? How does it occur in certain gastropods? Give an illustrated account of torsion and detorsion in this molluscan class. 20