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(20517) Roll No. ....

B.Sc. (Micro.) II Yr.

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B.Sc. (Micro.) Examination, May 2017

BIOLOGY-IV

(B-210)

Time : Three Hours / [Maximum Marks : 50]

Note: Attempt any five questions. Each question carries equal marks.

1. What are the various plant hormones? Discuss the various methods of auxin activity, production and role of auxin in plants? Discuss the various methods of gibberellin activity, production and role of gibberellin in plants?

2. Draw and label a diagram of a plant cell.

3. Multiplicative and secretory cells of the endocrine system.

4. Describe the structure and function of the following:

etc.

1. What do you mean by bioassay? Describe the various experiments to bioassay the auxins, gibberellins and cytokinins.

4. Write short notes on the following:

- (a) Meristems
- (b) Abscission zone
- (c) Discovery of GA<sub>1</sub>
- (d) Richmond-Lang Effect.

5. Describe the structure and function of the following:

- (a) Thyroid gland
- (b) Pancreas.

6. Explain the following with reference to conduction of nerve impulse:

- (a) Resting membrane potential
- (b) Action potential
- (c) Synaptic transmission
- (d) Synapse

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What are the functions of the endocrine system and homeotherms?

Explain the mechanism of temperature regulation in them.

8. Compare the following:

- (a) Glycogenesis and Glycogenolysis
- (b) Gluconeogenesis and Glycolysis.

9. What is concept of 'drive'? Discuss primary and secondary aspects of motivation.

10. Write short notes on the following :

- (a) Karl von Frisch
- (b) MAP
- (c) Habituation
- (d) Social life in termites
- (e) Circannual rhythm.