

**A-0032**

**Total Pages : 3**

**Roll No. ....**

**MBOT-509**

**M.Sc. BOTANY (MSCBOT)**

**(Plant Physiology)**

**2nd Semester Examination, Session December 2024**

**Time : 2:00 Hrs.**

**Max. Marks : 35**

*Note :- This paper is of Thirty Five (35) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

**Section-A**

**(Long Answer Type Questions)     2×9½=19**

*Note :-* Section 'A' contains Five (05) Long-answer type questions of Nine and Half (9½) marks each. Learners are required to answer any *two* (02) questions only.

1. Define mineral nutrients and explain role and deficiency symptoms of mineral nutrients.
2. Describe the pathway, energy conservation and functions of Glycolysis.
3. Define photoperiodism. Discuss its classification.
4. Describe in detail the mechanism of stomatal movements with diagram.
5. What are plant growth regulators ? Discuss their applications in detail.

### **Section–B**

**(Short Answer Type Questions)      4×4=16**

**Note :-** Section 'B' contains Eight (08) Short-answer type questions of Four (04) marks each. Learners are required to answer any *four* (04) questions only.

1. Write a short note on Kreb's cycle.
2. Define Seed Dormancy ? Discuss its causes.
3. Differentiate between the following :
  - (a) Primary and secondary active transport.
  - (b) Photosystem I and II.

4. Give a brief note on drought stress in plants.
5. Discuss about alcohol fermentation.
6. Give a short note on Vernalization.
7. Briefly discuss about Phytochrome.
8. Write a short note on Soil less culture.

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