



K23U 2330

Reg. No. :

Name :

V Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/
Improvement) Examination, November 2023
(2019 – 2021 Admissions)
Core Course in Botany/Plant Science
5B07BOT/PLS – PLANT PHYSIOLOGY AND METABOLISM

Time : 3 Hours

Max. Marks : 40

PART – A
(Objective Type Questions)

Answer all.

(4×1=4)

- Premature fall of leaves is due to
 - Decrease in Auxin
 - Increase in Auxin
 - Increase in Ethylene
 - None of the above
- Magnesium is an important constituent of
 - Cytochromes
 - Chlorophyll
 - Carotenes
 - Phaeophytin
- Guttation occurs through
 - Lenticels
 - Stomata
 - Hydathodes
 - Both b) and c)
- Dry seeds when placed on moist substratum absorb water and swell up due to
 - Imbibition
 - Diffusion
 - Exosmosis
 - Endosmosis

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PART – B
(Short Essay Questions)

Answer any eight.

(8×2=16)

- Explain osmotic potential.
- What are essential elements ?
- Explain vital movements in plants.
- Write notes on isoenzymes.
- What are monosaccharides ? Give example.
- Distinguish between apoplast and symplast.
- Comment on deficiency diseases.
- Explain Fluorescence.
- What is Respiratory Quotient ?
- Comment on phytochromes.
- What is meant by enzyme inhibition ?
- Describe renaturation of proteins.

PART – C
(Essay Questions)

Answer any four.

(4×3=12)

- Write a brief account on the physiological roles of auxin.
- Give a brief account on ascent of sap.
- Write short notes on vernalization.
- Explain the factors affecting enzyme activity.
- Comment on Glycogen and its role in plant growth.
- Give a brief account on secondary metabolites and their types.

PART – D
(Long Essay Questions)

Answer any one.

(1×8=8)

- Describe the Calvin cycle. Add notes on the factors affecting photosynthesis.
- Write an account on lipids, its classification and biological functions.
- Give a detailed account on absorption of water, its mechanism and the factors affecting the process.