Progressive Education Society's

Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16, NEP 2020 (Autonomous)

End Semester Examination: Nov/Dec 2023

***Total No. of Questions**: 4* ***Total No. of Pages**: 2*

First Year (B. Sc. Biotechnology)
BIO1145: Plant Science
(Semester I)

Program: B. Sc. Biotech (03) **Credits:** 2
Program Specific: Biotechnology **Time:** 2 Hours
Course Type: VSC **Max. Marks:** 30
Paper:- **SET: A**

Instructions to the candidate:

1) *All questions are compulsory.*
2) *Figures to the right indicate full marks.*
3) *Draw a well labelled diagram wherever necessary.*

SECTION: A

Q1) Answer the following **[5 X 1= 5]**

1. Enlist any two examples of algae.
2. What are microelements? Give one example.
3. Define osmosis.
4. Give any one function of plant cell wall.
5. Mention any two economic applications of pulses.

SECTION: B

Q2) Answer the following (Attempt any 5/7) **[5 X 2 =10]**

1. Diagrammatically represent the internal membrane system in the plant cell.
2. Give any two industrial applications of fungi.
3. What is osmotic pressure and osmotic potential? Give their relation.
4. What are long day and short day plants? Give one example of each.
5. What is heartwood and sapwood?
6. Distinguish between gymnosperms and angiosperms.
7. What is source and sink? Explain with example.

P.T.O.

SECTION: C

Q3) Answer the following/Write short notes on following (Attempt any 2/4) [2 X 5 = 10]

1. With neat labelled diagram describe the electron transport chain.
2. Explain the various components of photosynthetic apparatus.
3. Tabulate the classification of plant tissue in detail.
4. Describe the roots as important plant organ. Give any three root modifications.

SECTION: D

Q4) Answer the following (Attempt any 1/2) [5 X 1 = 5]

1. State and explain in detail pressure-flow hypothesis.
2. What is imbibition? Give significance of imbibition in the life cycle of plants.

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