Progressive Education Society's

Modern College of Arts, Science & Commerce Ganeshkhind, Pune -16
End Semester Examination: March/April 2024

Faculty: Science and Technology

Program: B.Sc. **Semester: IV** **SET: B**
Program (Specific): General B.Sc. **Course Type:** Core
Class: S.Y. B.Sc. **Max. Marks: 35**
Name of the Course: Plant Biotechnology
Course Code: 22 - BO - 242 **Time: 2Hr**
Paper: II

Instructions to the candidate:

1) ***There are 4 sections in the question paper. Write each section on separate page.***
2) ***All Sections are compulsory.***
3) ***Figures to the right indicate full marks.***
4) ***Draw a well labelled diagram wherever*** *necessary.*

SECTION: A

Q1) Answer the following **5**

I) Give examples of two GMO crops.

II) Mention two benefits of yeast as SCP

III) Name two equipments used in PTC laboratory.

IV) What is proteome and proteomics?

V) Define Biotechnology.

Q2) Answer <u>any four</u> of the following **4**

I) What is the contribution of Har Govind Khorana?

II) Mention advantages of static culture of in plant tissue culture.

III) Mention two micro-organisms used for SCP production.

IV) Define genetic engineering.

V) Enlist two renewable energy sources.

VI) What is Bioventing ?

SECTION: B

Q3) Write short note on <u>any</u> four the following **8**

I) What is somatic hybrids?

II) Describe essential factors for the production of SCP from *Spirullina* .

III) Mention features of restriction enzymes.

IV) What is functional genomics?

V) Explain phytovolatization.

VI) What is biomass energy?

SECTION: C

Q4) Answer <u>any four</u> of the following **8**

I)Describe briefly procedure of protoplast fusion.

II) Describe acceptability of SCP.

III) Describe tools used in genetic engineering.

IV) Give names of methods used for whole genome sequencing.

V) What is rhizofiltration ?

VI) Mention hydrogen energy producing micro-organisms.

SECTION: D

Q5) Attempt <u>any two</u> of the following **10**

I)Explain meristem culture.

II) Write a note on applications of Bio-informatics.

III) Explain Ex-situ Bio- remediation.

IV) Write a note on Biodiesel production.
