

MODEL QUESTION PAPER

BSC III YEAR

BIOTECHNOLOGY

SECOND PAPER

MOLECULAR BIOLOGY AND GENETIC ENGINEERING

TIME: 3 HRS

MAXIMUM MARKS: 40

MINIMUM MARKS: 15

Note: The question paper consists of two sections: A and B. attempt all the questions according to the given instructions.

Section A

Short Answer Type Questions

Note: Attempt all questions. Each question carries three marks (5 X 3 = 15)

Q1. What is microbial contamination.

Or

Explain Amylase and Protease.

Q2. Write a short note on anther culture.

Or

Explain Somatic embryogenesis.

Q3. Describe stem cell culture.

Or

Define vaccines.

Q4. Write comments on Air lift fermentor.

Or

Write note on Inoculum development.

Q5. Write short note on any two:

- a. Methogenic bacteria
- b. Microbial hydrogen production
- c. Microbial leaching
- d. Vermicomposting.

Section B

Long Answer Type Questions

Note: Attempt all questions. Each question carries five marks (5 X 5 = 25)

Q6. Write industrial production of any two:

- a. Penicillin
- b. Ethyl alcohol
- c. Glutamic acid
- d. Citric acid

Q7. Explain genetic manipulation of plants by *A. tumifaciens*.

Or

Write detail note on somatic hybridization.

Q8. explain cells of immune system.

Or

Explain methods of transfection and cell fusion of animal cells.

Q9. Explain primary and secondary screening.

Or

Write detail note on strain improvement.

Q10. Explain solid waste management.

Or

Describe primary, secondary, & tertiary treatment of waste water.

