

M.Sc. (Botany) Semester - 2 (CBCS) Examination
August/September -2020 [NEW COURSE]
Biotechnology & Immunology (CORE)

Time: 2:00 Hours**Marks: 56****Instructions:**

1. Figure to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any four of the following questions.
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Que-1 Answer the following (Any seven out of ten, each of 02 marks) [14]

1. Define the term "Bioremediation."
2. Enlist DNA isolation methods.
3. What is a plasmid?
4. What are basic steps of plant tissue culture?
5. What is immobilization? Write down the name of enzyme immobilization methods.
6. Define the term Biotechnology?
7. Give the role of CTAB in DNA isolation.
8. What are monoclonal antibodies?
9. What is genetic engineering?
10. Differentiate agglutination and precipitation.

Que-2 Answer the following (Any two out of three, each of 07 marks) [14]

1. Discuss the advantages and disadvantages of cell immobilization
2. Describe in situ bioremediation.
3. Write a note on scopes of biotechnology in the field of agriculture.

Que-3 Answer the following (each of 07 marks) [14]

1. Write a note on vectors.
2. How would you isolate bacterial DNA? Summarize.

OR

Que-3 Answer the following (each of 07 marks) [14]

1. What is genetic engineering? Discuss in brief.
2. What is gene targeting? Explain.

Que-4 Answer the following (any two each of 07 marks) [14]

1. Write a note on media animal tissue culture media.
2. What is tissue culture? Give its basic steps.

Que-5 Answer the following (Any two out of four, each of 07 marks) [14]

1. Write a note on the types of antibody and their structure.
2. Explain what is adaptive immunity
3. Write a note on hypersensitivity and its types.
4. Briefly describe antigen-antibody interactions
