

M.Sc. (Zoology) Semester - 2 (CBCS) Examination
May/June-2021 (NEW COURSE)
Biotechnology & Immunology (CORE)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figure to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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Q .1 Answer the following (any seven out of ten, each of **two** marks)**14**

1. Explain Phagocytosis.
2. What is MCS?
3. What is bioremediation?
4. Mention application of immobilized cell.
5. Enlist the animal tissue culture techniques.
6. Enlist type of restriction enzyme and explain molecular mechanisms.
7. Define EcoR1.
8. Define plant tissue culture techniques.
9. What is contribution of Kohler and Milstein?
10. What is HGPRT?

Q. 2 Answer the following (any two out of three, each of **seven** marks)**14**

1. Explain bioremediation of organic pollutants.
2. Explain the principle and preparation of immobilized cells.
3. Discuss the principle and techniques of animal tissue culture.

Q. 3 Answer the following (each of **seven** marks)**14**

1. What is PBR322? Explain in detail.
2. Write short note on DNA isolation techniques.

Q.4(A) Answer the following (each of **five** marks)**10**

1. Explain principle and techniques of plant tissue culture.
2. Explain types of plant tissue culture in brief.

Q.4 (B) Answer the following (any One out of two)**04**

1. Mention the steps involved in plant tissue culture.
2. Describe advantage and disadvantage of PTC media.

Q.5 Answer the following (any two out of four, each of **seven** marks)**14**

1. Write short notes on formation of secretory IgA.
2. Define monoclonal antibodies with suitable diagram.
3. What are antibody isotypes? Describe its characteristic and functions.
4. What are lymphocytes? Describe their characteristic in detail.
