



MCA-003-018202

Seat No. _____

M. Sc. (Zoology) (Sem. II) (CBCS) Examination

April / May - 2018

Zoo - 208 : Biotechnology & Immunology

(Old Course)

Faculty Code : 003

Subject Code : 018202

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

1 Answer the following very briefly : (Any Seven) 14

- (a) What are cosmids and phages?
- (b) Define antibody.
- (c) Define antigen with examples.
- (d) What is genetic engineering?
- (e) What is ELISA?
- (f) What is tissue culture?
- (g) What is monoclonal antibody?
- (h) Define hypersensitivity.
- (i) Name few methods of enzyme immobilization.
- (j) What is immunofluorescence?

2 Answer of the following : (Any Two) 7+7=14

- (a) Briefly describe the basic structure of antibody.
- (b) Point out the bacterial characteristics useful for commercial applications.
- (c) Describe the embryo transfer technique in animal husbandry.

3 Answer the following : 7+7=14

- (a) Write a note on restriction enzymes and gene targeting.
- (b) Briefly describe the application of immobilized enzymes and cells.

OR

MCA-003-018202]

1

[Contd....

- 3** Answer the following : **7+7=14**
- (a) Write the applications of the ELISA test.
 - (b) Describe various types of plant tissue culture.
- 4** Answer the following : **7+7=14**
- (a) Write few methods of animal cell culture.
 - (b) Describe autoimmunity with examples.
- 5** Answer, the following : (Any **Two**) **7+7=14**
- (a) Write a brief note on the T-cell receptors
 - (b) Describe immediate hypersensitivity with examples
 - (c) Write a short note on monoclonal antibody
 - (d) Name the scopes of genetic engineering.
-