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PAR-003-1182002 Seat No. _____

M. Sc. (Zoology) (Sem. II) (CBCS) (W.E.F. 2016) Examination

August / September - 2020

ZOO - 208 : Biotechnology & Immunology

Faculty Code : 003

Subject Code : 1182002

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

1 Answer the following : (Any **Seven**) **2×7=14**

(a) What are xenobiotic compounds?

(b) What is bio-augmentation?

(c) Enlist some culture media are used for animal tissue culture.

(d) What is feeder layer?

(e) Enlist various types of Plant Tissue Culture.

(f) What are the plasmids and cosmids?

(g) Explain nomenclature of EcoR1 Restriction endonuclease.

(h) Enlist hormones routinely used for plant tissue culture

(i) What is transcytosis?

(j) Define Opsonization.

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

(a) Give an account of bacterial characteristics useful for their commercial applications.

(b) Discuss enzyme immobilization by covalent-binding, also its advantages and limitations.

(c) Describe the slide culture technique for explanation in animal tissue.

3 Answer the following : **7×2=14**

(a) Describe DNA isolation techniques.

(b) What do you mean by restriction enzymes and gene targeting?

OR

3 Answer the following : **7×2=14**

(a) What are the principles of Plant Tissue Culture ? Explain.

(b) Write notes on basic protocols of plant tissue culture.

4 Answer the following : **7×2=14**

(a) Write note on Inflammation.

(b) Write a brief note on Autoimmunity.

5 Answer the following : (Any **Two**) **7×2=14**

(a) What are the scopes of Animal Biotechnology?

(b) Describe recombinant insulin.

(c) What is multiple shoot culture? Discuss its importance.

(d) Explain delayed hypersensitivity.
