

**B.Sc. (Part-III)**

**Ani. Biotech.**

**8007-III**

**B.Sc. (Part-III) Examination, 2021**

(Faculty of Science)

(Common to Three and Five Year Integrated Course)

**BIOTECHNOLOGY**

Paper-BT-703

(Animal Biotechnology)

**Time Allowed : 3 Hours**

**Maximum Marks : 50**

Answer of all the questions (short answer as well as descriptive) are to be given in the main answer-book only. Answers of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

Write your roll number on question paper before start writing answers of questions.

Question No. 1 is compulsory. Answer five questions in all, selecting at least one question from each Section.

**PART-A**

1. Answer the following questions in brief :

- (a) Name important areas where research in biotechnology depends on tissue culture.
- (b) State the most important precaution to follow for maintenance of aseptic condition.
- (c) Name all natural media useful for promoting cell growth.
- (d) Which enzyme is most commonly used for disaggregation?
- (e) How many techniques are used for quantification of cells in cell culture? Name them.

- (f) What is the difference between a cell line and a cell strain?
- (g) Name assays to detect nonviable cells from a culture.
- (h) Which is the most commonly used mammalian cell line?
- (i) Who discovered Hybridoma technology?
- (j) Classify the technique of organ culture.

10x1=10

**PART-B**

**SECTION-A**

2. Describe in detail various steps used in cell culture.

10

**OR**

Give a detailed account on the sources of microbial contamination in cell culture.

10

**SECTION-B**

3. How will you select media for culture of different cell types? Explain in detail.

10

**OR**

Discuss various methods of cell separation.

10

**SECTION-C**

4. Explain in detail characterization of cell lines.

10

**OR**

Describe the methods used for preservation of animal cell lines.

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**SECTION-D**

5. Describe commercial production of monoclonal antibodies.

10

**OR**

What do you mean by stem cells? Classify different stem cells with a note on their application.

10

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