This question paper contains **2** printed pages]

NB—20—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(New Pattern)

BIOTECHNOLOGY

(Animal Biotechnology)

(Wednesday, 6-12-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) Attempt *all* questions.

(*ii*) Illustrate your answer with suitably labelled diagram wherever necessary.

1. Describe in detail primary and established cell lines. 15

Or

(*a*) Write a short note on laminar flow hoods. 8

(*b*) Describe the behaviour of animal cell in culture media. 7

2. Describe in detail monolayer, suspension and embryonic cell culture. 15

Or

(*a*) What is the role of pH and CO_2 in animal cell culture ? 8

(*b*) Write a short note on maintenance of stock culture. 7

P.T.O.

3. Describe in detail biology and characterization of cultured cells. 15

Or

(*a*) Write a short note on tissue taping. 8

(*b*) What are the measuring parameters of growth of cell ? 7

4. What is animal cell culture ? Enlist the applications of animal cell culture. 15

Or

(*a*) Explain viral gene delivery systems. 8

(*b*) What is hybridoma technology ? Enlist its application. 7

5. Write short notes on any *three* out of four : 15

(*a*) Refrigeration and freezers

(*b*) Basal salt solution

(*c*) Cell-cell interaction

(*d*) Cell transformation.