

This question paper contains 2 printed pages]

**NB—07—2023**

**FACULTY OF SCIENCE**

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

**NOVEMBER/DECEMBER, 2023**

**(New Pattern)**

**BIOTECHNOLOGY**

**(Industrial Biotechnology)**

**(Friday, 1-12-2023)**

**Time : 10.00 a.m. to 1.00 p.m.**

*Time—3 Hours*

*Maximum Marks—75*

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

(ii) Draw well labelled diagrams wherever necessary.

(iii) All questions carry equal marks.

1. Describe in detail strain improvement. 15

*Or*

Write notes on :

(a) Modification of Permeability. 8

(b) Isolation of mutants which do not produce feedback inhibitors. 7

P.T.O.

WT

( 2 )

NB—07—2023

2. Describe methods of cell disruption. 15

*Or*

Write notes on :

(a) Liquid-Liquid extraction 8

(b) Crystallization. 7

3. Describe in detail citric acid production : 15

*Or*

(a) Describe vitamin B<sub>12</sub> production. 8

(b) Describe protease production. 7

4. Describe GLP. 15

*Or*

(a) Describe Fermentation Economics. 8

(b) Describe Carcinogenicity Test. 7

5. Write short notes on (any *three*) : 15

(a) QC

(b) Toxicity Test

(c) Pectinase Production

(d) Drying

(e) Reverse Osmosis.

NB—07—2023

2