



VI Semester B.Sc. Examination, May/June 2018
 (CBCS 2016-17 and Onwards/2013-14 and Onwards) (Fresh+Repeaters)
BIOTECHNOLOGY
 Industrial Biotechnology (Paper – VIII)

Time : 3 Hours

Max. Marks : 70

Instructions : Draw neat labelled diagrams wherever necessary.

SECTION – A

I. Write short notes on the following :

- 1) Baiting
- 2) Upstream processing
- 3) Product extraction
- 4) Biotransformation
- 5) Membrane reactor.

(5×2=10)

BMSCW

SECTION – B

II. Answer **any four** of the following :

- 6) What are microbial polysaccharides ? How are they produced ?
- 7) Describe the types of baffles used in fermenters.
- 8) Explain the uses of enzymes in leather processing industries.
- 9) Write a note on penicillin production.
- 10) Explain various methods involved in concentration of products in DSP.

(4×5=20)

SECTION – C

III. Answer **any three** of the following :

- 11) Explain various sterilization techniques.
- 12) Give an account of strain improvement.
- 13) Discuss the use of immobilised enzymes in upstream processing.

(3×10=30)

P.T.O.



14) Describe industrial production of citric acid.

15) Write notes on :

a) Stirred tank

b) Airlift fermenter.

SECTION - D

IV. Answer the following in **one word or a sentence each** :

(10×1=10)

16) What are polyesters ?

17) Expand SCP.

18) What is whey ?

19) Define coagulation.

20) Name a steroid produced by biotransformation.

21) What is a fermenter ?

22) How is foam controlled in a fermenter ?

23) Name a microbial polysaccharide.

24) What is malting of beer ?

25) Name two enzymes used in food industry.