

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 09

B.Sc.(BT) (2013 to 2017) (Sem.-6)
FERMENTATION TECHNOLOGY
Subject Code : BSBT-306
Paper ID : [F0229]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**1) Write briefly :**

- a) What do you mean by cell disruption?
- b) Define sterilization.
- c) Define enzyme and enzyme activity.
- d) What do you mean by scale up?
- e) What are the factors affecting on K_{La} ?
- f) What do you mean by aseptic operations?
- g) What is the volumetric oxygen transfer coefficient?
- h) What do you mean by downstream processing?
- i) What do you mean by drying?
- j) What do you mean by immobilization?

SECTION-B

- 2) Discuss microbial growth kinetics.
- 3) Write a note on continuous sterilization.
- 4) Explain the theory of centrifugation.
- 5) List five applications of enzyme.
- 6) Write a note on microbial insecticides.

SECTION-C

- 7) Explain different ways of protein precipitation.
- 8) Explain microbial production of biosurfactants and their importance.
- 9) Write advantages and disadvantages of immobilization. Discuss the various methods in details.