Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

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B.Sc.(BT) (2014 to 2017) (Sem.–6)

FERMENTATION TECHNOLOGY

Subject Code : BSBT-306

M.Code : 47066

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) Write monod equation.

b) Write importance of Aeration.

c) What are the factors affecting on K_La?

d) Define a term of sterilization.

e) Define a term of Biomass. Give two examples.

f) Explain Fed batch culture.

g) What is dilution rate?

h) Define enzyme. Give two examples of enzyme.

i) What are advantages of enzyme immobilization?

j) Define scale-up and scale-down.

SECTION-B

2) What is drying and why it is important?

3) Describe Monod's growth kinetics.

4) Compare and contrast a batch and continuous bioreactor.

5) Explain the term of media optimization and Antifoam.

6) Write a short note on industrial application of enzyme.

SECTION-C

7) Discuss the various techniques for enzyme immobilization with suitable examples.

8) Explain in detail about the two different design approaches for continuous sterilization process.

9) What is downstream process technology? Outline in general the various steps in downstream process technology.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.