

Roll No.

60563

B.Sc. (Bio-Technology) 6th Sem.

Examination – April, 2013

BIOPROCESS TECHNOLOGY

Paper : BT-603

Time : Three hours]

[Maximum Marks : 50

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

प्रश्नों के उत्तर देने से पहले परीक्षार्थी यह सुनिश्चित कर लें कि उनको पूर्ण एवं सही प्रश्न-पत्र मिला है। परीक्षा के उपरान्त इस सम्बन्ध में कोई भी शिकायत नहीं सुनी जायेगी।

Note : Attempt five questions in all. Question No. 1 (Short answer type) is compulsory. Attempt four more questions selecting one question from each Unit given below. Each question carries ten marks.

1. Write brief notes on the following :

2 × 5

(a) Fermentor

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P. T. O.

- (b) Impeller
- (c) Baffles
- (d) Define aerobic
- (e) DSP

UNIT - I

- 2. Range of bioprocess technology and its chronological development. 10
- 3. Write notes on the following : 5 + 5
 - (a) Batch Culture
 - (b) Continuous Culture

UNIT - II

- 4. Describe the Packed Tower and their application in production processes. 10
- 5. Write notes on the following : 5 + 5
 - (a) Upstream processing,
 - (b) Inocula development.

UNIT - III

- 6. Describe the various factor of bioprocess measurement and control systems. 10
- 7. Describe the mass transfer coefficient. 10

UNIT - IV

- 8. Explain microbial production and uses of Lactic Acid. 10
- 9. Write notes on the following : 5 + 5
 - (a) Single cell proteins production,
 - (b) Effluent treatment.