

2016

**BIOPROCESS TECHNOLOGY AND
INDUSTRIAL BIOTECHNOLOGY**

Time : Two Hours] [Maximum Marks : 40

Answer any **four** questions. The questions are of equal value.

1. Describe the process of screening and improvement of industrially important microorganisms.
2. Write short notes on the following :
 - (a) Analysis of batch
 - (b) Growth models
3. Describe, in brief, bioreactor designing and types of bioreactors.
4. Write short notes on the following :
 - (a) Measurement of growth in microbes
 - (b) Scale up and scale down process

5. Write an essay on microbial leaching of minerals.
6. Write short notes on the following :
 - (a) Foam separation
 - (b) Mineral beneficiation
7. Describe the process of technology used for the production of citric acid.
8. Write short notes on the following :
 - (a) Collection of literature
 - (b) Vitamins