(2)

2019

(January)

Time: 2 hours

Full Marks: 40

Answer any four questions

All questions carry equal marks

Candidates are required to answer in their own words as far as practicable

## ( BIOPROCESS AND INDUSTRIAL BIOTECHNOLOGY )

- Define fermentation and describe the significance of raw materials used in media preparation.
- 2. Write short notes on the following:
  - (i) Screening of microorganisms
  - (ii) Air sterilization.

3. What is bioreactor and explain different types of bioreactors with examples.

4. Write short notes on the following:

- (i) Scale down process
- (ii) Microbial growth cycle? West
- Explain the process of bioremediation of oil using microorganisms.
- Explain cell separation techniques and describe its significance in downstream processing.
- 7. Write short notes on the following:
  - (i) Cephalosporin
  - (ii) Bioplastic.
- Describe the concept of manuscript and explain the process of plagiarism check.

(Turn Over)