

M.Sc. (Microbiology) (NEP Pattern) Semester-III
STPG03MCB003 / 03MSCMB03 Paper-III - Bioprocess Technology

P. Pages : 1

Time : Three Hours



GUG/S/25/16125

Max. Marks : 80

-
- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well labelled diagram wherever necessary.

1. Describe the principle and working of continuous fermentation process on the basis of chemostat & turbidostat. **16**

OR

- a) Explain the Monods Model for Growth kinetics. **8**
b) Explain working mechanism of fluidized bed reactor with example. **8**

2. Describe the various bioseparation techniques used in down stream process. **16**

OR

- a) Explain ion-exchange chromatography technique used in product purification process. **8**
b) Explain drying techniques and process with example. **8**

3. Explain principle and process of production of streptomycin. **16**

OR

- a) Explain r-DNA technology for ethanol production. **8**
b) Explain the bioprocess for Detrans production. **8**

4. Describe the various steps involved in industrial production of Amylases. **16**

OR

- a) Explain the production of Glucose-Oxidase and write its applications. **8**
b) Explain production and applications of Vit. B₁₂. **8**

5. Write a note on.
a) Propellers. **4**
b) Gel filtration. **4**
c) Biopreservative **4**
d) Applications of Riboflavin. **4**
