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Register Number:

7239

Name of the Candidate:

DIPLOMA EXAMINATION, 2010
(INDUSTRIAL BIOTECHNOLOGY)
(PAPER-III)

130. BIO-PROCESS TECHNOLOGY

Dec]

[Time : 3 Hours

Maximum : 100 Marks

Answer any FIVE questions

(5×20=100)

1. Explain the growth cycle pattern and kinetics in batch culture.
2. Give an detailed account of aerobic and anaerobic fermentation processes.
3. Discuss in detail the different configuration of Airlift Fermenter design and operation.
4. Write in detail about the structured models of growth and product formation.
5. Describe how oxygen is transferred from air-bubble to the microbial cells and also comment on the resistances offered at each step.
6. Explain the importance of mass transfer and heat transfer in the fermentation process.
7. Write on filter sterilization of liquid media and air. Differentiate between batch and continuous sterilization.
8. Give a detailed account of Media requirements of Fermentation Process.
9. Describe the methods adopted for Bioreactor Scale-up.
10. Discuss the role of Aeration and Agitation in Bioprocess.
