R09

Code No: C5105

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I SEMESTER EXAMINATIONS APRIL/MAY-2012
BIO-PROCESS ENGINEERING
(CHEMICAL ENGINEERING)

Time: 3hours **Max.Marks:60**

Answer any five questions
All questions carry equal marks

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1. Explain the principles of bioprocess? Discuss about the kinetics of biomass production.

2. Distinguish between aerobic and anaerobic fermentations, and describe them in detail.

3. Write a note on proteins and explain about protein synthesis in cells.

4. What are the salient features that you consider as important in the design of a bioreactor? Explain.

5. How do you monitor and control, dissolved oxygen & P^H in a bioreactor? Explain.

6. Discuss about adsorption and electrophoresis techniques in detail.

7. Explain about the thermal death kinetics of micro organisms in a fermentation process

8. Discuss about the following:
   a) Sedimentation
   b) Centrifugation
   c) Filtration.

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