

Thapar University
End-semester examination.
B.Tech (Biotechnology) IV year

Biomanufacturing: BT-014

Course instructor Dr A. Ganguli

Date: 23.5.07

Marks: 36

Time: 3 hr

Attempt any 5 questions, please answer in continuation

All questions carry equal marks

- Q1. Describe the importance of microbial cultures in biomanufacturing. Explain any two methods of culture preservation. (4+3.2)
- Q2. Explain the need for Single Cell Proteins. Name at least two industries manufacturing SCP's and schematically represent one production process (4+0.2+ 3)
- Q3. Why agro based wastes are thought to be important sources for value added products. Give example of one such process stating the role of biotechnology (4+3.2)
- Q4. Schematically explain: Vinegar production & biochemical changes occurring during beer fermentation (3+4.2)
- Q5. Write briefly on immobilization. Give two examples of immobilization, stating their industrial applications. (4+2+1.2)
- Q6. Write short notes on (a) Rifampicin production (5+2.2)
(b) Tannin degradation
- Q7. Describe the importance of biopolymers and write briefly on their method of production & characterization . Give two examples of biopolymers. (4+3+0.2)