

Thapar Institute of Engineering and Technology
End semester Examination
(BH-006) Bioanalytical techniques

13.12.06

Time: 3hour

Max. Marks: 36

Course Instructor: Dr Abhijit Ganguli;

Attempt any five question

- Q 1. Explain why radioisotopes have assumed significance in biological sciences. Name two widely used radioisotopes. (5+2.2)
- Q2. Describe autoradiography. Give a simple scheme to isolate a commercially important metabolite using radiolabelling (2.2+5)
- Q3. What are high throughput systems? Give examples of their uses in microbial screening and proteomics/genomics. (2.2+5)
- Q4. Describe any two methods for disrupting microbial cells. State one disadvantage of each method. (5.2+2)
- Q5. Give an account of Western blotting. Explain briefly how enzymatic activity can be detected over gels. (3.6+3.6)
- Q6. Write short notes on (a) Ultra filtration (b) Electron microscopy (3.6+3.6)
- Q7. State Lambert –Beers law. Describe the applications of spectrophotometry in biological sciences giving at least two examples. (2.2+5)