

Code :R7412311

R7

IV B.Tech I Semester(R07) Supplementary Examinations, May/June 2011  
METABOLIC ENGINEERING  
(Biotechnology)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions  
All questions carry equal marks

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1. Explain gene regulation by Jacob and Monod model citing lac operon as example.
2. Detail the regulation of enzyme synthesis at Fermentor level.
3. Write notes on enzyme induction in the biosynthesis of secondary metabolites.
4. Define bioconversion and describe in detail the conversion of insoluble substances by sequential bioconversion.
5. Describe induction and repression in yeast, citing alcohol production as example.
6. Discuss the experimental methods for the determination of metabolic flux.
7. Give the structure of metabolic network.
8. Discuss the applications of metabolic engineering.

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FIRSTRANKER