

R07**Code: R7312303**

B.Tech III Year I Semester (R07) Supplementary Examinations, May 2013
BASIC INDUSTRIAL AND ENVIRONMENTAL BIOTECHNOLOGY
(Biotechnology)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. Describe the two fermentative methods of production of L-Lysine and their uses.
2. Define antibiotic? Discuss mechanism of action, and process of penicillin production.
3. Enumerate different microorganisms producing various enzymes? Describe the flow diagram of industrial production and applications of enzymes.
4. What are therapeutic proteins? Briefly describe the production of insulin and their diagnostic applications.
5. Write short notes on:
 - (a) Xanthan gum.
 - (b) High fructose corn syrup.
 - (c) Nisin.
6.
 - (a) What are the various processes involved in waste water treatment?
 - (b) Explain in detail with diagrams about the activated sludge process.
7. Enumerate the processes, applications and limitations of the following:
 - (a) Land farming.
 - (b) Prepared beds.
 - (c) Soil piles.
8.
 - (a) What are xenobiotic compounds? Explain the biodegradation of xenobiotics.
 - (b) Mention the biological detoxification of oxalate and urea.
