Code: R7312303

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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.
