



SD-3721

M. Sc. (Sem. VIII) (Int. Biotech.) Examination

April / May - 2011

IBT-801 : Bioprocess Technology - II

Time : 3 Hours]

[Total Marks : 70

Instruction : (1)

नीचे दशांशिक निशानीवाणी विगतो उत्तरवही पर अवश्य लक्षणी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. Sc. (Sem. VIII) (Int. Biotech.)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="IBT-801 : Bioprocess Technology - II"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="2"/> <input type="text" value="1"/>	Section No. (1, 2,.....) : <input type="text" value="Nil"/>
Student's Signature	

2. Figures to the right indicate full marks.
3. Draw neat and labelled diagrams wherever necessary.

- 1 Explain in detail **Any Two**: (18)
 - (a) Define bioprocessing. Elaborate on selective advantages of microbial biotransformations over non-biological chemical reactions.
 - (b) Methods for preservation of industrially important microorganisms.
 - (c) Feedback control mechanisms for regulation of primary metabolites in microorganisms.
- 2 Attempt **Any Two**: (18)
 - (a) Write an exhaustive note on biochemistry of Citric acid production.
 - (b) Write down the production process of Vitamin B₁₂.
 - (c) Describe the properties and production process of polysaccharides.
- 3 Explain in detail **Any Two**: (18)
 - (a) Discuss in detail about the physiology of growth of baker's yeast.
 - (b) Give the production aspects of aminoglycosides antibiotics.
 - (c) Describe the biosynthesis, production process and strain improvement for penicillin production.
- 4 Explain **Any Two** of the following: (16)
 - (a) Define steroids. Explain methods of steroid addition.
 - (b) Reactions catalysed by mono-oxygenases.
 - (c) Role of hydrolytic enzymes in synthesis of chemicals.
 - (d) 11-Hydroxylations for steroid bioconversions.