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SD-3703

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

April / May – 2011

IBT-603 : Microbial Biotechnology

Time : **3** Hours] [Total Marks : **70**

Instruction : (1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **M. Sc. (Sem. VI) (Int. Biotech.)**

Name of the Subject :

☛ **IBT-603 : Microbial Biotechnology**

☛ Subject Code No. : **3 7 0 3** ☛ Section No. (1, 2,.....) : **Nil**

Seat No. :

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 fermenter. Explain various component part of fermentation process.
(b) Microbial biomass and recombinant products as important component in range of fermentation process.
(c) Various carbon and nitrogen sources used for industrial fermentation.

2 Attempt **Any Two**: (18)
(a) Factors involved in fermenter design.
(b) Configurations of continuous stirred-tank fermenter and fluidised bed fermenter.
(c) Principal operating characteristics of fermenters.

3 Explain in detail **Any Two**: (18)
(a) Methods of preservation of industrial strain.
(b) Methods for enriching desirable microorganisms.
(c) Contribution of recombinant DNA technology in strain improvement.

4 Explain fermentation process overview of **Any Two** of the following: (16)
(a) Streptomycin.
(b) Ethanol.
(c) Vitamin C.
(d) Gluconic acid.