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# SD-3682

## M. Sc. (Sem. IV) (Int. Biotech.) Examination

### April / May – 2011

## IBT-402 : Microbiology - II

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. IV) (Int. Biotech.)**

Name of the Subject :

☛ **IBT-402 : Microbiology - II**

☛Subject Code No. : **3 6 8 2** ☛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 continuous culture. Explain various methods to obtain continuous culture of microorganism.
(b) Stationary and Decline phase of bacterial growth curve.
(c) Explain methods to obtain synchronous culture. Give its applications.

2 Attempt **Any Two**: (18)
(a) Define antibiotic. Explain non-medical uses of antibiotics.
(b) Explain drug resistance in terms of origin, mechanism and transmission with appropriate example.
(c) Antifungal antibiotics.

3 Explain in detail **Any Two**: (18)
(a) Sigma factors of *E. coli* and their role.
(b) Simple and facilitated diffusion for uptake of nutrients.
(c) Membrane carbohydrate and lipids.

4 Explain **Any Two** of the following: (16)
(a) Formation of endospore.
(b) Photosynthesis in purple and green bacteria.
(c) Sulfur oxidizers.
(d) Production of methane gas by methanogens.