

(i) Printed Pages : 2

Roll No. ....

(ii) Questions : 9

Sub. Code : 

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B.A./B.Sc. (General) 2<sup>nd</sup> Semester

1046

**INDUSTRIAL MICROBIOLOGY (Elective)**

**Paper– IMB 201 : Fundamentals of Microbiology-II**

**Time Allowed : Three Hours]**

**[Maximum Marks : 33**

**Note :** Attempt five question in all, including Question no.1 which is compulsory and selecting one question from each Unit.

**(Compulsory Question)**

1. (i) What are mycoplasma ?
- (ii) Differentiate between fermenter and bioreactor.
- (iii) What are bacteriophages ?
- (iv) Explain the principle of lyophilization.
- (v) Explain the process of nitrification.
- (vi) Differentiate between substrate level phosphorylation and photophosphorylation. 1.5×6

**UNIT-I**

2. Give the classification of fungi with important salient features of each taxon. 6
3. Write notes on the following :
  - (i) Techniques for determining microbial taxonomy
  - (ii) Immobilized enzyme bioreactors. 3,3

## UNIT-II

4. Write notes on the following :
- (i) Types of media 3,3
  - (ii) Halophiles. 6
5. Discuss the types of nutrition found in microorganisms. 6

## UNIT-III

6. Discuss various preservation methods for fungal culture. 6
7. Give the brief account of :
- (i) Maintenance of stability of the preserved culture. 3,3
  - (ii) Significance of preservation. 3,3

## UNIT-IV

8. Write notes on the following :
- (i) Gluconeogenesis 3,3
  - (ii) Symbiotic nitrogen fixation. 6
9. Discuss the Krebs's cycle. 6