

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

0	0	8	3
---	---	---	---

Exam. Code :

0	0	0	1
---	---	---	---

B.A./B.Sc. (General) 1st Semester

1125

INDUSTRIAL MICROBIOLOGY (Elective)

Paper : IMB-101 : Fundamentals of Microbiology-I

Time Allowed : 3 Hours]

[Maximum Marks : 33

Note :- Attempt **five** questions in all. Q. No. 1 is compulsory and select **one** question from each Unit (I-IV).

1. Answer the following (**Compulsory**) :

- (a) Enlist the members of Microbial World.
- (b) Differentiate between light & electron microscope.
- (c) What is synchronous growth ?
- (d) What is phenol coefficient ?
- (e) What are the biochemical properties of microbial membranes ?
- (f) Define active and passive transport. 1.5×6=9

UNIT-I

2. (a) Describe the notable contributions of 5 Scientists for which they are remembered in microbiology field .

(b) Differentiate between Archaea, Bacteria & Eukarya domains.

3,3

3. Discuss the principle and uses of bright field and florescent microscope. 6

UNIT-II

4. What is the importance of bacterial endospores ? Briefly describe endospore formation and germination process. 6
5. Define bacterial growth curve. Highlight the factors responsible for the onset of each phase. 6

UNIT-III

6. Describe various physical methods of sterilization and highlight advantages and disadvantages of each. 6
7. (a) What is microbial death ? Why does a population of microbes not die instantaneously when exposed to antimicrobial agent.
- (b) Write a note on Chemical Disinfectants. 2,4

UNIT-IV

8. Briefly describe the various types of membrane transports in Prokaryotes. 6
9. Write short notes on :
- (a) Photosynthetic microbes
- (b) Photo phosphorylation. 3,3