

1115  
B.A./B.Sc. (General) Third Semester  
Industrial Microbiology  
MIC-301: Environmental Microbiology

Time allowed: 3 Hours

Max. Marks: 33

**NOTE:** Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit

x-x-x

I. Answer the following:-

- a) Why it is important to classify micro-organisms? (2)
- b) Name any six helminthic diseases. (1½)
- c) Define reservoir, carrier and antibiogram. (1½)
- d) Name any six drugs which inhibit protein synthesis in bacteria. (2)

**UNIT- I**

- II. a) Discuss the role of host in infectious disease. (2)
- b) What is food? Differentiate between food infections and food intoxication. (1½)
- c) Name any six bacterial and six viral diseases. (3)
- III. a) Define localized infections, generalized infections, acute and chronic infections. (2)
- b) Explain the four phases seen during a course of infection. (2)
- c) How will you measure the frequency of infectious diseases? (2½)

**UNIT- II**

- IV. a) Differentiate between identification and classification. (2)
- b) What are the main criteria for the classification of micro-organisms? Discuss briefly. (2)
- c) Explain seven divisions of classification of fungi. (2½)
- V. a) Who proposed the five kingdom system of classification? Explain all the kingdoms in detail. (5)
- b) Discuss briefly general methods of classifying bacteria. (1½)

P.T.O.

(2)

**UNIT - III**

- VI. a) Define virulent strain, primary infection and subclinical infection. (1½)  
b) Discuss briefly the classification of exotoxins. (2)  
c) Explain how pathogenic micro-organisms passively penetrate the human body to cause infection. (3)
- VII. a) What are endotoxins? Discuss briefly pharmacological effects exhibited by endotoxins. (3½)  
b) Discuss any three enzymes produced by bacteria that contribute virulence in body. (3)

**UNIT - IV**

- VIII. a) Define antimicrobial drugs. Name any five anti-bacterial agents. (2)  
b) Write a brief note on E-test. (2)  
c) Discuss briefly the various factors influencing the effectiveness of antimicrobial agents. (2½)
- IX. a) Name any five antibiotics that inhibit the cell wall synthesis of bacteria. Discuss their mode of action. (3½)  
b) Write a note on broth diffusion test. (3)

x-x-x