B.Sc. 5th Semester (Honours) Examination, 2022 (CBCS)

Subject : Nutrition

Course : CC-XII

(Medical Microbiology)

Time : 2 Hours **Full Marks : 40**

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions of the following: 2×5=10

(a) Name two normal flora of stomach.

(b) What is tuberculin test?

(c) Define the following: ID50 and Chemotherapeutic index

(d) What are the symptoms of ulcer caused by *Helicobacter pylori*?

(e) Differentiate between gram positive and gram-negative bacteria.

(f) What do you mean by opportunistic pathogen?

(g) How does normal flora of small intestine aids in digestion?

(h) What are the treatment methods used for rabies?

2. Answer *any two* questions of the following: 5×2=10

(a) Give a brief description on 'nosocomial infection' with an example. Write a short note on bacterial endospore. 2+3=5

(b) Differentiate between the following: (i) exotoxin and endotoxin (ii) gram positive and gram negative cell wall. 2½+2½=5

(c) "Mycobacterium tuberculosis has developed multiple drug resistance"– Justify.

(d) Define infection. What are the different ways of transmission of an infection? 1+4=5

3. Answer *any two* questions of the following: 10×2=20

(a) Briefly discuss the beneficial and harmful effects that normal flora imposes on humans. Does normal flora become opportunistic pathogen? —Justify. 8+2=10

(b) What do you mean by antibiotic sensitivity? Differentiate between narrow spectrum and broad spectrum antibiotics. Briefly discuss the mode of action of 'Penicillin and Streptomycin'. 2+2+(3+3)=10

(c) Write down the steps of pathogenesis caused by a microorganism within a host. Briefly explain the mode of action of cholera toxin. 5+5=10

(d) What is lysogeny? Briefly describe lysogeny of lambda phage. State the difference between pathogenicity and virulence. 2+6+2=10
