

U.G. 4th Semester Examination - 2022**MICROBIOLOGY****[HONOURS]****Skill Enhancement Course (SEC)****Course Code : MB-H-SEC-L-02****(Management of Human Microbial Diseases)**

Full Marks : 40

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable*1. Answer any **five** questions of the following: $2 \times 5 = 10$

- What do you mean by nosocomial infections?
- How can a woman prevent urinary tract infections?
- Name the mandatory vaccine which is given to a new born in India.
- What is PABA?
- What are the basic differences between endotoxin and exotoxin?

- Name a microorganism associated with eye and skin infections.
- What do you mean by epidemic and pandemic diseases?
- What do you mean by opportunistic infections? Give an example.

2. Answer any **two** of the following questions: $5 \times 2 = 10$

- Write short notes on MDR and XDR strains.
 $2\frac{1}{2} + 2\frac{1}{2}$
- What are macrolide antibiotics? How does it work?
 $2 + 3$
- What is DOTS? Mention its usages.
 $3 + 2$
- Show diagrammatically how malarial parasites spread in our body.
 5

3. Answer any **two** questions of the following: $10 \times 2 = 20$

- Discuss briefly with diagram, how are AIDS developed in human body. What are the current treatment options for it? What is HAART?
 $6 + 2 + 2$

[Turn Over]

- b) Which β -lactam antibiotic can be given when a patient is allergic to penicillin? Discuss the mode of action of that antibiotic. Which antibiotic inhibits DNA gyrase? What are the common causes of antibiotic resistance?

1+4+1+4

- c) What do you mean by recombinant vaccine? Give an example of subunit vaccine. How is Hepatitis B vaccine generated, discuss briefly? Write down two advantages and disadvantages of using DNA vaccine.

2+1+3+4

- d) Describe briefly with examples how microorganisms access human cells and tissues to cause disease. How we can prevent the mosquito borne diseases? What is ID_{50} and LD_{50} of drug?

4+2+4
