

Microbiology [P.G.]

[CBCS]

M.Sc. Fourth Semester End Examinations-2024

[Regular & Supplementary Paper]

PAPER- MCB 402

[Advanced Microbiology]

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

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

Illustrate the answers wherever necessary

[Use separate answer script for each group]

Group-A

(Natural therapeutic)

Marks 20

1. **Answer any two questions from the following:** **2x2= 4**
 - a. What is prodrug. Example.
 - b. Define pharmacokinetics.
 - c. What is therapeutic index?
 - d. Write the example of the neutraceuticals.

2. **Answer any two questions from the following:** **2x4= 8**
 - a. How probiotic improve the gutmicrobiota? **2+2**
 - b. Write the impact of drug resistance bacteria in our society.

(2)

- c. What are enteric dialysis? What is musroom?
- d. Classify antibiotics and write down their mode of action.

3. Answer any one question from the following: 1x8= 8

- a. Write down the name of liver enzyme in drug metabolism. Write down the drug delivery system. Write its advantages and disadvantages. 2+(3+3)
- b. Write the importance of fish probiotics? Whats is its impact in global market? What is the importance of CP450? 2+3+3

Group-B

[Advanced Bio Product]

Marks - 20

1. Answer any two questions from the following: 2x2= 4

- a. What is copyright?
- b. What is QA in phasma industry?
- c. What is trade secret property Right?
- d. What is nanomedicine?

2. Answer any two questions from the following: 2x4= 8

- a. Why GMP is important in pharmaceutical industry. State the significance of PHB. 2+2
- b. What are the application of stroid and their derivatives. 4
- c. Write two biomedical application of electro spin nano fiber. 4

(3)

- d. Write the ISO definition of classification of nanomaterials on the dimension. 4

3. Answer any one question from the following: 1x8= 8

- a. Why do nano materials show properties in between that of molecules and bulk materials. Describe types of material and defination of composite materials. Chemical vapour deposition is an example of bottom up approach to the synthesis of nanomaterials? Explain. 2+2+4
- b. Write two biomedical application of electrospine nanofiber. Write the applications of nanoparticles in agriculture. 4+4
