



End Semester Examination: MAR / APR 2025

Total No. of Questions: 4/18

Total No. of Pages: 2

SECOND YEAR (SY B.Sc.)

COURSE CODE: MIC24103

COURSE NAME: Indian Traditional Microbiology Knowledge System
(Semester IV)

Program: BScGen03

Program Specific: SY B.Sc. Microbiology

Course Type: Discipline specific Major

Paper: III

Credits: 2

Time: 2 Hours

Max. Marks: 30

SET: A

Instructions to the candidate:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw a well labelled diagram wherever necessary.

Q1) Answer the following

[5 X 1 = 5]

- a) Discuss the major contribution of Acharya Sushrut to Indian knowledge.
- b) Enlist any 2 fermented feeds
- c) Discuss the contents of Charaka Samhita
- d) Explain the microbes involved in lactic acid fermentation.
- e) Using example, explain the term: Epidemic

Q2) Attempt any five from the following

[5 X 2 = 10]

- a) Discuss any 4 contributions of Acharya Vagabhat.
- b) Comment on the concept of antimicrobial resistance.
- c) Describe ayurvedic alcoholic beverages with the help of examples.
- d) Comment on fermented dyes and explain any 2 in details.
- e) Explain the concept of rutucharya.
- f) Analyze the factors that can affect the efficiency and yield of alcoholic fermentation.
- g) Prepare a table containing two disease causing bacteria and diseases caused by them.

Q3) Attempt any two from the following

[2 X 5 = 10]

- a) Describe the preparation method of Asava with the help of flowchart.
- b) Discuss the methods of disinfection commonly used in microbiology.
- c) Relate the concept of viruses in Ayurveda with the modern concept of viruses and its role in disease formation.
- d) Explain - Ayurveda as personalized medicine.

Q4) Attempt any one from the following

[5 X 1 = 5]

- a) Enlist any 5 Indian fermented foods. Prepare a table (of any 1 fermented food) with details related to microbes involved, process of fermentation, place of origin etc.
- b) Use a flow chart to explain how gut microbiome changes with respect to differences in prakriti.

Chapter wise Distribution of Marks				
Unit	Chapter no.	Chapter name	Marks	Marks with Option
I	I	Microbiology in ancient India	15	Q1(3)+Q2 (10)+ Q3(5)+Q4(5)=23
II	I	Traditional applications of microorganisms	15	Q1(2)+Q2 (6)+ Q3(15)+Q4(5)=28
			Total: 30	48

Question Number	Knowledge 30%	Understanding 40%	Application and Skill 30%
Q1)	1(1)+1(1)=2	1(1)+1(1)=2	1(1)=1
Q2)	1(2)+1(2)+1(2)+1(2)=8	1(2)+1(2)=4	1(2)=2
Q3)	1(5)=5	1(5)+1(5)=10	1(5)=5
Q4)	0	0	2(5)=10
TOTAL	15	16	18