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FIRST YEAR
24MIC12101 Microbial biochemistry and growth
(Semester II)

Program: BScGen03
Program Specific: Microbiology
Course Type: DSC
Paper: I

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) Attempt **ANY SIX** of the following:

[6 X 2 = 12]

- a) Quote two examples of monosaccharides.
- b) Discuss role of triglycerides.
- c) Describe role of ribosomes in bacterial cell.
- d) Discuss spheroplast.
- e) What is role of agar in bacteriological media?
- f) Illustrate two methods for preservation of bacterial culture.
- g) Calculate generation time if bacterial culture completes 4 generations in one hour.
- h) What are halophiles?

Q2) Attempt **ANY THREE** of the following:

[4 X 3 = 12]

- a) Identify different groups of amino acids based on their side chains.
- b) Discuss structure of bacterial cell wall.
- c) Report factors need to be considered while designing of bacteriological media.
- d) List advantages of turbidometric method for determining growth of bacterial culture.
- f) Summarize growth curve.

Q3) Attempt **ANY TWO** of the following:

- a) Diagrammatically represent the structure of DNA molecule.
- b) Correlate functions of capsule in bacterial cells and pathogenesis.
- c) Delineate any one method for isolation of bacterial culture.
- d) Explain effect of pH on bacterial growth.

MCAS