

NOTE:

- All questions are compulsory.
- All questions carry equal marks.
- Draw diagram wherever necessary.

Q. 1 (a) Define any four of the following terms. (04)

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| i. Hopanoids | v. Amphitrichous |
| ii. Periplasmic space | vi. Exosporium |
| iii. LPS | vii. Curing |
| iv. Slime layer | viii. Flagellin |

Q. 1 (b) Give the function of any one of the following. (01)

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| i. Fimbriae and Pili. | ii. Ribosomes. |
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Q. 1 (c) Answer any two of the following. (10)

- i. What is an inclusion body? Enlist the different inclusion bodies in prokaryotes and state the functions of inclusion bodies.
- ii. Compare and contrast the cell walls of Gram positive and Gram negative bacteria.
- iii. Diagrammatically explain the locomotory organelle of Gram positive bacteria.
- iv. Describe the structure of cell wall of a yeast cell.

Q. 2 (a) Explain any one of the following terms. (02)

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| i. Miscelles. | ii. Nucleotide. |
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Q. 2 (b) State any three of the following statements as true or false. (03)

- i. Thymine is the nitrogenous base which is present instead of Guanine in RNA.
- ii. Water molecules are attached with each other by hydrogen bond.
- iii. Fructose is an epimer of glucose.
- iv. Water is a universal solvent.
- v. DNA is acidic in nature.
- vi. Lactose and Glucose are stereoisomers of each other.

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