

Q. 2 (c) Discuss any two of the following questions.

- i. Disaccharides and its formation with a suitable example.
- ii. Structures of nitrogenous bases.
- iii. Isomerism in glucose.
- iv. Water as a universal solvent.

Q. 3 (a) Define any five of the following terms.

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| i. Avirulent. | vi. Localized infection. |
| ii. LD ₅₀ . | vii. Chronic infection. |
| iii. Secondary infection. | viii. Environmental biotechnol |
| iv. Exotoxin. | ix. Inhibitory transmitter. |
| v. Infection. | x. Siderophore. |

Q. 3 (b) Attempt any two of the following.

- i. Explain in brief about the historical background of biotechnology.
- ii. Differentiate between endotoxin and exotoxin.
- iii. How is passive penetration different from active penetration?
- iv. Justify "Biotechnology- three component central core".

Q. 4 Write a short note on any three of the following.

- i. Plasmid and types of plasmid.
- ii. Structure of plasma membrane.
- iii. Hydrophobic interaction.
- iv. t-RNA.
- v. Antiphagocytic factor.
- vi. Tetanus toxin.