

Q.2 Attempt any **THREE** of the following: (12)

- a) Name of the parts of the microscope below the stage and give their functions.
- b) Why are lipids important to a cell?
- c) Enlist properties of water. Why is it called a universal solvent?
- d) Name any four scientists in the Modern Era of microbiology and enlist their contributions.

Q.3 Attempt any **FOUR** of the following: (12)

- a) Write a short note on fermentation.
- b) Give the role of microbes in sewage treatment.
- c) Give the basic structure of proteins.
- d) Give the important properties and functions of bases.
- e) Give the principle and applications of phase contrast microscope.

Q.4 Answer any **TWO** of the following: (12)

- a) Name different parts of electron microscope and explain the formation of an image in an electron microscope.
- b) With the help of diagram explain capsule staining.
- c) Draw a diagram of a polynucleotide.

Q.5 Answer any **TWO** of the following: (12)

- a) Explain the procedure of Acid fast staining.
- b) What are purines? Explain with the help of a suitable diagram.
- c) Why is Robert Koch's contribution important in the field of Microbiology?

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