

Instructions: (a) Figure to the right indicates total marks of respective question.

(b) Draw neat, clean and labeled diagram wherever necessary.

- Q.1 Explain:**
a) Theory of Biogenesis and abiogenesis 07
b) Applied area of microbiology 07
- OR**
- Q.1** a) Who give Germ theory of diseases? Explain in detail 07
b) Define biotechnology and explain in detail 07
- Q.2** a) How microorganisms distributed in nature?-Explain 07
b) Explain in detail- Protozoa 07
- OR**
- Q.2 Explain:**
a) Prokaryotes and Eukaryotes 07
b) Actinomycetes 07
- Q.3 Discuss:**
a) Principle of microscopy and Resolving power 07
b) Dark field microscope 07
- OR**
- Q.3** a) Give principle and application of SEM 07
b) Write in detail- Phase contrast microscopy 07
- Q.4** a) How bacteria cultivated on solid media? 07
b) Explain in detail- Smear preparation 07
- OR**
- Q.4 Explain:**
a) Vital and supravital staining 07
b) What is intensifier? Explain with its uses. 07
- Q.5** a) Explain in detail-Fatty acids 07
b) Give classification of protein 07
- OR**
- Q.5 Explain:**
a) Write down functions of protein 07
b) Classification of lipid 07