

- N.B. : (1) Question No. 1 is compulsory.
 (2) Solve any three questions out of remaining questions.
 (3) Draw suitable diagram wherever necessary.

1. Attempt any four out of six (Short notes):- 20
- (a) Cell wall of gram -ve bacteria
 - (b) Passive Diffusion
 - (c) Thermal Death time
 - (d) Role of microorganism in food industry.
 - (e) Turbidostat
 - (f) Koch's Postulates.
2. (a) "Streak plate method helps in isolating pure Colonies of microorganism". Justify. 10
 (b) Explain the replication cycle of viruses. 10
3. (a) Explain in detail about antibiotics and various antibiotic targets of bacterial cells. 10
 (b) Give a description about bacterial cell. Support your answer with a diagram. 10
4. (a) What are bacterial toxins? Explain mode of action of cholera toxin. 10
 (b) "Uptake of nutrients by cell is possible by different means". Justify this statement. 10
5. (a) Write a note on nutritional requirement for bacterial growth. 10
 (b) Differentiate between Radiation and Filtration. 10
6. (a) Write a note on antimicrobial sensitivity test. 10
 (b) Explain the role of microorganisms in biochemical transformation of Carbon Compounds. 10
-