

QUESTION BANK : FYBSC (SEM I)
PAPER 2 – UNIT III MICROBIOLOGY

1. Discuss the structure of the microbial cell wall with a detailed mention of its components.
2. Discuss the functions of plasma membrane.
3. In detail, explain the different types of bacteria based on size and shape.
4. Detailed explanation on contribution of leeuwenhoek and Pasteur in microbiology.
5. Note on spontaneous generation theory.
6. Describe the composition & structure of peptidoglycan in gram positive and gram negative bacteria.
7. Describe with labeled diagram & in words the fluid mosaic model for cell membrane.
8. Write down function of flagella and explain different types of bacteria based on patterns of flagella.
9. Write down principle of gram staining and capsule staining.
10. Short note on thermophiles and psychrophiles with respective examples.
11. Elaborate on bacterial taxonomy.
12. What are halophiles? Why does halobacterium require sodium and potassium ions?
13. define: a) simple staining b) mordant c) negative staining
14. Elaborate on different types of staining reaction.
15. describe: a) periplasmic space b) teichoic acid c) outer membrane d) lipopolysaccharides
16. Enlist the function of capsule.
17. Distinguish between fimbriae and sex pili and give their functions.