

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS),VELLORE-1.

QUESTION BANK

SUB: GENERAL MICROBIOLOGY (15CPMB1A)

UNIT – 1: TAXONOMY

6 MARKS

1. Explain evolutionary perspectives of microbiology and its recent developments and applications.
2. Give an account on differences and similarities among microorganisms.
3. Describe the principles and classification in Numerical Taxonomy.

15 MARKS

4. Give an account on distinctive characteristics of major groups of microorganisms.
5. Explain the classification of bacteria according to Bergey's manual.

UNIT – 2: MICROSCOPY

6 MARKS

1. Write the principle and the application of Bright field microscope.
2. Explain the principle of Dark field microscope.
3. Explain the principle and the uses of Fluorescence microscope.
4. Describe the principle of Phase contrast microscope.

15 MARKS

5. Write in detail: Electron microscope and its types.
6. Add a note on stains, its types and the principles of various staining methods.
7. Write in detail: Sterilization, its types and quality control.

UNIT – 3: BACTERIAL ANATOMY

6 MARKS

1. Describe pure culture techniques.
2. Give a brief account on sporulation and its mechanism.
3. Add a note on Archaeobacterial evolution and their membranes.
4. Explain the metabolism of Archaeobacteria.

15 MARKS

5. Write in detail: bacterial anatomy.
6. Give an account on types of bacteria based on nutritional requirements.
7. Explain in detail: bacterial growth curve and kinetics of growth.

UNIT – 4: MICROBIAL METABOLISM

6 MARKS

1. Describe the amino acid metabolism.
2. Explain briefly: β -oxidation of fatty acid metabolism.
3. Bacterial photosynthesis – explain

15 MARKS

4. Add a detailed note on Purine & Pyrimidine biosynthesis.
5. Write in detail: bioluminescence.
6. Write in detail: carbohydrate metabolism.

UNIT – 5: MICROBIAL PHYSIOLOGY

6 MARKS

1. Write a note on Methanogens.
2. Explain the metabolic control mechanisms.

15MARKS

1. Write about the physiology of microorganisms living in extreme environments.