

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS),VELLORE-1.
MICROBIOLOGY AND IMMUNOLOGY (16CPZO3C)

UNIT-I

SECTION-A

6 Marks

1. Give a brief account on the history of microbiology.
2. Enlist the scope of microbiology.
3. Explain about the structure of virus.
4. Describe the shape and arrangement of bacteria.
5. Explain about the structure of bacteria.
6. Describe the structure of fungi.

SECTION-B

15 Marks

1. Write about the outline classification of virus, bacteria and fungi.

UNIT-II

SECTION-A

6 Marks

1. Explain the method of sterilization by tyndilization and pasteurization.
2. Describe the method of sterilization by radiation.
3. Write about the method of sterilization by disinfection.
4. Explain the different types of culture techniques.
5. What is culture media? Explain – How to prepare the culture media?
6. Explain the hanging drop and wet mount culture methods.
7. Describe the simple and differential staining methods.
8. Write about the staining for pure and mixed cultures.

SECTION-B

15 Marks

1. What is sterilization? Explain the dry heat, moist heat and filtration methods.
2. Write in detail about the aerobic and anaerobic culture techniques.
3. Give an account on the special staining techniques for microscopic identification of microorganisms.

UNIT-III**SECTION-A****6 Marks**

1. Give a brief account on the industrial uses of microbes.
2. Describe the fermentation product -vinegar.
3. Write about the fermentation product –ethanol.
4. Explain about the bioconversions.
5. List out the role of microbes in food production.
6. Give a brief account on the alcoholic beverages.
7. Write a short note on the fermented foods.

SECTION-B**15 Marks**

1. What is bioremediation? Explain in detail about the types and uses of bioremediation.
2. Write about the dairy and non-dairy products.
3. Discuss about the role of microbes in antibiotics and vaccines production.

UNIT-IV**SECTION-A****6 Marks**

1. Give a brief account on the immunoglobulins.
2. Describe the precipitation and agglutination.
3. Write about the complements.

SECTION-B**15 Marks**

1. Explain in detail about ELISA .
2. Write about the antigen processing and presentation
3. Discuss about the inheritance of MHC.

UNIT-V**SECTION-A****6 Marks**

1. Give a brief account on B cell receptors
2. Explain the T-cell receptors
3. Explain about the cytokine
4. Describe the adhesion molecule
5. Explain about the complements.
6. Describe the hypersensitivity reaction.

SECTION-C**15 Marks**

1. Write about the transplantation immunology.