

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

MICROBIAL TECHNIQUES

SECTION-A

6 Marks

1. Recent development in Microbiology
2. Structure of bacteria
3. Fungi
4. Protozoa
5. Functions of cellular components
6. Bacteria
7. Fungi
8. Protozoa
9. Bacteriophage – structure
10. Eukaryotic viruses any one
11. Cellular media – specialised media
12. Streak plate
13. Growth curve
14. Chemical sterilization
15. Molecular taxonomy
16. Taxonomy characters
17. DNA analysis
18. Ribosomal RNA analysis
19. Gnetamic acid production
20. Production of beer
21. Production of wine
22. Cheese
23. Yoghurt
24. Ethanol
25. Role of microorganism in ecosystem

26. Pathogenesis of virus
27. Bacteria
28. Microbials mechanism of escaping the host defense
29. Antibacterial drugs
30. Antiviral drugs
31. Anti – fungal drugs
32. Drug resistance
33. Specimen collection and handling
34. Transporting specimen
35. Identification of microbes from specimen
36. Computers in microbiology
37. Control of bacteria
38. Control of virus
39. Control of fungi
40. Control of protozoa
41. Prevention of pathogenicity of bacteria
42. Prevention of pathogenicity of viral
43. Prevention of pathogenicity of fungi
44. Prevention of pathogenicity of protozoa
45. Role of lactic acid bacteria in milk fermentation
46. Sour cream
47. Acidophilus milk
48. Butter milk
49. Kumis
50. Alcoholic beverages
51. Why microorganisms are used for beer, wine and sake production
52. Role of *Saccharomyces cerevisiae* in fermentation of alcohol beverages
53. Edible fungi
54. Phenotypic taxonomy
55. Kinetics of growth curve
56. Bacteriophage life cycle

57. Infectious process of lytic cycle
58. Lysogenic cycle and its regulation
59. Types of beer
60. Types of wine
61. Bacteriophage – infection of host cells process
62. Retrovirus
63. Types of infection – Eukaryotic virus
64. Taxonomical characters of eukaryotic viruses
65. Molecular taxonomy
66. Taxonomy classification
67. Principles of taxonomy
68. Production of sake
69. Production of vinegar
70. Inoculation methods of culture

SECTION-B 15 Marks

1. Recent development and future trend in microbiology
2. Viruses
3. Bacteriophage – structure and lifestyle
4. Eukaryotic viruses – taxonomy, structure and infectin process
5. Ultrastructure and function of cellular components bacteria
6. Ultrastructure and function of cellular components fungi
7. Ultrastructure and function of cellular components protogoa
8. Culture media
9. Microbial growth curve and kinetics
10. Isolation of pure culture
11. Physical sterilization
12. Chemical strilization
13. Principle and classification of taxonomy
14. Molecular and phenotypic taxonomy
15. DNA and RNA analysis

16. Role of microorganism in the productivity of ecosystem
17. Production of ethanol
18. Production of vinegar
19. Production of citric acid
20. Production of glutamic acid
21. Downstream processing of ethanol
22. Downstream processing of vinegar
23. Downstream processing of citric acid
24. Downstream processing of glutamic acid
25. Dairy productions – cheese
26. Dairy productions – yoghurt
27. Dairy productions – kefir, sourcream
28. Dairy productions – acidophilus milk
29. Dairy productions – kumis
30. Alcoholic beverages beer
31. Alcoholic beverages wine
32. Alcoholic beverages alcohol
33. Pathogenesis of virus and bacteria
34. Microbial mechanism of escaping the host defense
35. Antibacterial and antiviral drugs
36. Antifungal drugs
37. Drug resistance
38. Specimen collection, handling and transport
39. Identification of microbes from specimen
40. Cure, control and prevention – viral
41. Cure, control and prevention – bacteria
42. Cure, control and prevention – fungi
43. Cure, control and prevention – protozoa
