



**SAIVA BHANU KSHATRIYA COLLEGE**  
(Aruppukottai Nadargal Uravinmurai Pothu Abi Viruthi Trustuku Pathiyapattathu)  
**ARUPPUKOTTAI**  
**DEPARTMENT OF ZOOLOGY**  
**QUESTION BANK**

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<b>Class :</b>	<b>B.Sc Zoology</b>		
<b>Semester (UG - III &amp; V; PG - III):</b>	<b>UG- V Semester</b>	<b>Subject Code :</b>	<b>SZYJC53</b>
<b>Name of the Subject :</b>	<b>Microbiology and Immunology</b>		

**Section A (Multiple Choice Questions)**

**Unit I: (Title of the Unit)**

- Who was the first to observe “animalcules” under the microscope?  
a. Antonie van Leeuwenhoek (b) Iceman (c) Terentius Varro (d) Robert Koch
- The temperature range for pasteurization is-----  
(a) 60 °C-70 °C (b) 62 °C-72 °C (c) 65 °C-75 °C (d) 121 °C-130 °C
- What do you mean by sterilization?  
(a) A Purification of products (c) Recovery of products  
(b) Elimination of contamination (d) None of the above
- During the lag phase?  
a. Microorganisms try to settle in the new environment  
(b) Shows exponential growth  
c. Death rate is equal to the rate of generation of new cell  
d. Number of live cells decreases
- phase is a period of rapid growth in bacterial growth curve.  
a) lag b) log c) stationary d) decline

**Unit II: (Title of the Unit)**

- This is analogous to mesosomes of bacteria  
(a) Golgi apparatus of eukaryotes (b) Lysosomes of eukaryote  
(c) Mitochondria of eukaryotes (d) None of the above
- This about cell wall of gram-positive bacteria is true  
(a) cell wall comprises of many layers  
(b) cell wall is thicker than the associated gram-negative bacteria  
(c) Cell wall comprises of teichoic acids (d) All of the above
- What is a cluster of polar flagella called?  
(a) Petritrichous (b) Monotrichous (c) Amphitrichous (d) Lophotrichous
- Gram staining was introduced by  
(a) Christian gram (b) Alfred Gram (c) Robertcook (d) Louis Pasteur



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10. Which of the following is not true for prokaryotic organism?  
(a) Nucleus is not bounded by nuclear membrane  
(b) Chromosomes does not contain histones  
(c) 80S ribosomes are distributed in cytoplasm  
(d) Cell wall contains peptidoglycan as one of the major component

**Unit III: (Title of the Unit)**

11. Which of the following diseases is transmitted through contaminated food and water?  
(a) Cholera    b) Tuberculosis    c) Zika virus    d) Dengue fever
12. What are the consequences of nosocomial infections?  
(a) Increased hospital stays                      (b) Increased healthcare costs  
(c) Increased mortality rates                      (d) All the above
13. Any change that renders food unfit for human consumption is called-----  
(a) Processing                      (b) Spoilage                      (c) Deterioration                      (d) Preservation
14. -----are the class of antibiotics that kills the bacteria and is effective against a wide range of disease-causing bacteria.  
a) narrow spectrum antibiotics                      b) broad-spectrum antibiotics  
c) bactericidal antibiotics                      d) both b & c
- 14.
15. HIV was discovered by -----.  
a) Louis Pasteur                      b) Luc Montagnier                      c) Jenner                      d) Leeuwenhoek

**Unit IV: (Title of the Unit)**

15. Which of the following is a secondary lymphoid organ?  
(a) Bone marrow                      (b) Hypothalamus                      (c) Spleen                      (d) Thymus
16. Which of the following cells is involved in humoral immunity?  
(a) T-cells                      (b) B-cells                      (c) Mast cells                      (d) Both T and B cells
17. Cells Involved in Innate Immunity are\_\_\_\_\_.  
(a) Phagocytes    (b) Macrophages    (c) Natural Killer Cells    (d) All of the above
18. The ability of an organism to resist infections by the pathogens is called\_\_\_\_\_.  
a) Infection    b) Hypersensitivity                      c) Immunity                      d) Allergy
19. B-cells and T-cells are two types of cells involved in \_\_\_\_\_.  
(a) Innate                      (b) Active                      (c) Passive                      (d) Acquired immunity



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**Unit V: (Title of the Unit)**

20. Hypersensitivity is the-----reaction.  
a) chemical                      b) allergic                      c) acidic                      d) base
21. The transplantation of tissue from one part of the body to another is called an:  
(a) autograft                      b) isograft                      c) allograft                      d) xenograft
22. Substances that are injected containing an antigen to stimulate the immune system to respond are called-----  
(a) immunoglobulins      (b) medications      (c) mast cells      (d) vaccines
23. Which of the following immunity is obtained during a lifetime?  
(a) Innate immunity      (b) Active immunity      (c) Passive immunity      (d) Both (b) and (c)
24. -----vaccines are prepared from live microbes by reducing the virulence and harmful effects.  
a) cellular                      b) attenuated                      c) toxoid                      d) all the above

**Section B (7 mark Questions)**

**Unit I: (Title of the Unit)**

25. Explain bacterial growth curve phases and factors affecting the growth curve.
26. Write an account on Scope of Microbiology.
27. Explain the types of culture medium.
28. Give an account on various Sterilization methods.
29. Describe the contributions of Alexander Flemming.

**Unit II: (Title of the Unit)**

30. Explain Prokaryotic cell.
31. Classify Virus types.
32. Give an account on structure of Bacterial flagella.
33. What is plasmid? Explain its types.
34. Compare gram positive and gram negative bacterial cell wall.

**Unit III: (Title of the Unit)**

35. Explain Nosocomial infections.



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36. Describe infection of Candidiasis.
37. Give an account on Food Preservation methods.
38. Explain the antibiotic effect of Penicillin.
39. Food as a medium for the growth of microorganism- Explain.

**Unit IV: (Title of the Unit)**

40. Write an account on stem cells.
41. Describe the role of B cells in Immune system.
42. What is the function of Bursa of fabricius.
43. Compare Epitope and Paratopes.
44. Give an account on Lymph node and its function.

**Unit V: (Title of the Unit)**

45. Explain Antigen and Antibody interactions.
46. Compare Precipitation and Agglutination.
47. Give an account on Hypersensitivity.
48. What are attenuated vaccines?
49. Differentiate active and passive immunization.

**Section C (10 mark Questions)**

**Unit I: (Title of the Unit)**

50. Give an account on preparation of nutrient agar, broth slant and stab.
51. Give an account on contribution of Louis Pasteur.

**Unit II: (Title of the Unit)**

52. Give an account on Structure of *E.coli*
53. Describe the Bacterial classification in detail.

**Unit III: (Title of the Unit)**

54. Describe Cholera infection and its control methods.



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55. Write an essay on AIDS in detailed account.

**Unit IV: (Title of the Unit)**

56. Describe the structure, properties and functions of IgG

57. Explain briefly the Organs of immune system.

**Unit V: (Title of the Unit)**

58. What is Vaccines? Explain the types of Vaccines.

59. Give an account on Major Histocompatibility complex.