

## Choose one correct answer

### 1. The cell wall of Gram positive bacteria is composed of:

- a) thin peptidoglycan layer
- b) thick peptidoglycan layer**
- c) nucleic acids
- d) outer membrane with lipopolysaccharide
- e) periplasmic space

### 2. The cell wall of Gram negative bacteria contains:

- a) inorganic components
- b) thin peptidoglycan layer**
- c) teichoic & lipoteichoic acids
- d) thick peptidoglycan layer
- e) nucleic acids

### 3. Pure culture of bacteria is represented by:

- a) the cells of one and the same genus
- b) the cells derived from different sources
- c) the cells of one and the same species**
- d) genetically different organisms
- e) cells of different species

### 4. Facultative anaerobes are bacteria

- a) which can produce energy only by fermentation
- b) which carry out only respiration
- c) which die in the presence of oxygen
- d) in which the final electron acceptor is molecular oxygen
- e) which can proliferate regardless of presence of oxygen**

### 5. Obligate aerobes are bacteria

- a) which can produce energy from glucose by fermentation
- b) in which the final acceptor is organic substance
- c) which require the presence of molecular oxygen for growth**
- d) in which the final electron acceptor is nitrogen
- e) which can proliferate regardless of presence of oxygen

### 6. Transformation as the mechanism for gene transfer

- a) accomplishes several types of transfer for genes from donor cell into recipient cell
- b) is mediated by the temperate bacteriophages
- c) involves uptake of fragments of free DNA by competent cells**
- d) depends on the presence of a conjugative plasmid in the donor cell
- e) requires viable donor cells

### 7. Conjugation as the mechanism for gene transfer

- a) accomplishes different ways of transfer for genes from donor cell to recipient cell
- b) is mediated by temperate bacteriophages
- c) involves uptake of fragments of free DNA by competent cells
- d) depends on the presence of a conjugative plasmid**
- e) requires inactivated donor cells

**8. Probiotics are biopreparations for the correction of microflora which consist of:**

- a) **live indigenous microorganisms**
- b) complex of live indigenous microorganisms with non-metabolizable substrates
- c) toxoids
- d) non-metabolizable non-absorbable substrates that are useful for growth of indigenous microbial flora
- e) bacteriophages

**9. Humoral components of innate (nonspecific) immunity defense is:**

- a) **complement system proteins**
- b) insulin
- c) macrophages
- d) bacteriophages
- e) endotoxin

**10. Cell component of innate immunity defense is:**

- a) **macrophages**
- b) B-cells
- c) T-cells
- d) normal antibodies
- e) erythrocytes

**11. Passive immunity refers**

- a) **to the protection based on the transfer of preformed specific antibodies**
- b) to the protection based on the transfer of preformed cell-mediated immunity
- c) to the protection based on the transfer of preformed cytokines
- d) provides local immunity
- e) provides long-term protection

**12. Active immunity refers**

- a) **to the protection based on the production of specific antibodies by the host after immunization or infectious disease**
- b) to the protection based on activity of NK-cells
- c) to the protection based on the transfer of preformed cytokines
- d) provides short-term protection
- e) to protection based on the transfer of preformed specific antibodies

**13. Agglutination reaction in tubes**

- a) is interaction between specific antibody and soluble antigen resulting in formation of clumps
- b) **is interaction between specific antibody and particulate antigen resulting in formation of sediment**
- c) is interaction between specific antibody and cytokine resulting in formation of clumps
- d) positive result - formation of insoluble ring precipitate
- e) negative result - hemolysis

**14. Slide agglutination reaction**

- a) is a reaction of specific antibody with a soluble antigen resulting in formation of precipitate
- b) **is a reaction of specific antibody with a particulate antigen resulting in formation of clumps**
- c) negative result - formation of clumps
- d) positive result - change of color
- e) positive result - hemolysis

**15. Killed viral vaccine is used for specific prophylaxis of**

- a) measles
- b) mumps
- c) hepatitis C
- d) rubella
- e) **rabies**

**16. Live vaccines are used for specific prophylaxis of**

- a) diphtheria
- b) hepatitis D
- c) botulism
- d) tetanus
- e) **tuberculosis**

**17. Live vaccine for specific prophylaxis against tuberculosis is called:**

- a) MMR
- b) DTP
- c) HLA
- d) **BCG**
- e) DT

**18. Positive result of ELISA is detected by:**

- a) hemolysis
- b) **change of color**
- c) formation of clumps
- d) formation of sediment
- e) flocculation formation

**19. Live viral vaccines are used for specific prophylaxis of**

- a) diphtheria
- b) **rubella**
- c) hepatitis B
- d) tetanus
- e) tuberculosis

**20. Toxoids are used for specific prophylaxis of**

- a) **diphtheria**
- b) rubella
- c) measles
- d) mumps
- e) tuberculosis

**21. Choose the infection for which prophylaxis we can use live or inactivated vaccine due to immune state of recipient:**

- a) tetanus
- b) rubella
- c) mumps
- d) measles
- e) **poliomyelitis**

## **22. Salmonella Typhi**

- a) Gram positive cocci arranged in grape-like clusters
- b) Gram positive rods arranged in chains
- c) Gram negative cocci arranged in pairs
- d) Gram negative rods arranged singly**
- e) Gram positive pleomorphic rods with bulge or bifurcation at the end

## **23. Neisseria gonorrhoeae**

- a) Gram positive cocci arranged in grape-like clusters
- b) Gram positive rods arranged in chains
- c) Gram negative cocci arranged in pairs**
- d) Gram negative rods arranged singly
- e) Gram positive pleomorphic rods with bulge or bifurcation at the end

## **24. Neisseria meningitidis**

- a) Gram positive cocci arranged in grape-like clusters
- b) Gram positive rods arranged in chains
- c) Gram negative cocci arranged in pairs**
- d) Gram negative rods arranged singly
- e) Gram positive pleomorphic rods with bulge or bifurcation at the end

## **25. Bifidobacterium bifidum**

- a) Gram positive cocci arranged in grape-like clusters
- b) Gram positive rods arranged in chains
- c) Gram negative cocci arranged in pairs
- d) Gram negative rods arranged singly
- e) Gram positive pleomorphic rods with bulge or bifurcation at the end**

## **26. Staphylococcus aureus**

- a) Gram positive cocci arranged in grape-like clusters**
- b) Gram positive rods arranged in chains
- c) Gram negative cocci arranged in pairs
- d) Gram negative rods arranged singly
- e) Gram positive pleomorphic rods with bulge or bifurcation at the end

## **27. Streptococcus pneumoniae**

- a) Gram positive cocci arranged in grape-like clusters
- b) Gram positive rods arranged in chains
- c) Gram positive cocci arranged in pairs**
- d) Gram negative rods arranged singly
- e) Gram positive pleomorphic rods with bulge or bifurcation at one end

## **28. Bacillus anthracis**

- a) Gram positive cocci arranged in pairs
- b) Gram positive rods arranged in chains with central spores**
- c) Gram negative cocci arranged in pairs
- d) Gram negative rods arranged singly
- c) Gram positive rods with terminal spores

## **29. Clostridium tetani**

- a) Gram positive cocci arranged in pairs
- b) Gram positive cocci arranged in grape-like clusters

- c) Gram positive rods arranged in chains
- d) Gram negative rods arranged singly
- e) **Gram positive rods with terminal spores**

**30. Pseudomonas aeruginosa**

- a) Gram positive cocci arranged in pairs
- b) Pleomorphic cells without cell wall
- c) Gram negative cocci arranged in pairs
- d) Gram negative motile curved rods
- e) **Gram negative motile rods arranged singly**

**31. Vibrio cholerae**

- a) Gram positive cocci arranged in pairs
- b) Pleomorphic cells without cell wall
- c) Gram negative cocci arranged in pairs
- d) **Gram negative motile curved rods**
- e) Gram negative motile rods not arranged in groups

**32. Mycoplasma pneumoniae**

- a) Gram positive cocci arranged in pairs
- b) Gram negative motile rods arranged singly
- c) Pleomorphic cells without cell wall
- d) Gram negative cocci arranged in pairs
- e) Gram negative motile curved rods

**33. Bacteria can be divided into the groups by Gram staining as they have**

- a) **thick or thin peptidoglycan layer (murein)**
- b) inclusions
- c) capsule
- d) outer lipopolysaccharide membrane
- e) mycolic acids

**34. Microscopical diagnosis method of tuberculosis is performed using**

- a) Gram stain
- b) **Ziehl-Neelsen stain**
- c) Methylene blue stain
- d) Giemsa stain
- e) Silver stain

**35. Which method may be used for detection of motile bacteria**

- a) Brightfield microscopy of stained smears
- b) Electron microscopy
- c) **Darkfield microscopy**
- d) immune electron microscopy
- e) Fluorescent microscopy

**36. Direct immunofluorescent test**

- a) is the reaction between specific antibody and soluble antigen,
- b) **is the reaction between antibody labeled with fluorescent dye and antigen**
- c) is the reaction of antibody with a particulate antigen
- d) is used to detect bacterial genomic DNA
- e) is used to detect bacterial ribosomal RNA

**37. Gram staining is used to**

- a) detect capsule
- b) differentiate gram positive and negative bacteria**
- c) differentiate acid fast and nonacid fast bacteria
- d) stain spores
- e) detect nucleic acids

**38. Ziehl-Neelsen staining is used to**

- a) detect capsule
- b) differentiate Gram-positive and Gram-negative bacteria
- c) differentiate acid fast and nonacid fast bacteria**
- d) stain spores
- e) detect nucleic acids

**39. Burry-Gins staining is used to**

- a) detect capsule**
- b) differentiate Gram-positive and Gram-negative bacteria
- c) differentiate acid fast and nonacid fast bacteria
- d) stain spores
- e) detect nucleic acids

**40. The cell wall of acid-fast bacteria is composed of**

- a) thick peptidoglycan layer without mycolic acids
- b) thin peptidoglycan layer with mycolic acids
- c) only teichoic & lipoteichoic acids
- d) thick peptidoglycan layer with mycolic acids**
- e) nucleic and teichoic acids

**41. Incompleted phagocytosis lacks the stage of:**

- a) chemotaxis
- b) digestion**
- c) attachment
- d) endocytosis
- e) antigen presentation

**42. The term "species of bacteria" means a group of organisms**

- a) with a close genetic resemblance to one another**
- b) which are derived from a single cell
- c) which are genetically different
- d) which inhabit the same biological niche
- e) which has similar phenotype but dissimilar genotype

**43. Incompleted phagocytosis is typical to pathogenesis of:**

- a) tuberculosis**
- b) botulism
- c) rubella
- d) mumps
- e) herpes

**44. Incompleted phagocytosis is typical to pathogenesis of:**

- a) whooping cough

- b) gas gangrene
- c) rubella
- d) gonorrhoea**
- e) measles

**45. Incompleted phagocytosis is typical to pathogenesis of:**

- a) plaque**
- b) diphtheria
- c) tetanus
- d) gas gangrene
- e) botulism

**46. Transduction as the mechanism of gene transfer**

- a) involves uptake of fragments of free DNA by competent cells
- b) is mediated by bacteriophages**
- c) accomplishes only one-way transfer of RNA from donor cell to recipient cell
- d) depends on the presence of a conjugative plasmid
- e) depends on the presence of a non-conjugative plasmid

**47. Choose the antibiotic which influence on the cell wall synthesis by inhibiting cross-linkage of peptidoglycan layers:**

- a) ampicillin**
- b) erythromycin
- c) gentamicin
- d) rifampin
- e) polymyxin

**48. Bacteriophages**

- a) are prokaryotic organisms;
- b) are naked viruses infecting bacteria**
- c) are enveloped viruses infecting bacteria
- d) have lipopolysaccharide membrane;
- e) genome contains two types of nucleic acid simultaneously

**49. Choose the group of infections which are transferred only between humans**

- a) sapronoses
- b) zoonoses
- c) anthroponoses**
- d) -
- e) -

**50. Choose the group of infections which are transferred to humans from the environment**

- a) sapronoses**
- b) zoonoses
- c) anthroponoses
- d) -
- e) -

**51. Choose the group of infections which are transferred to humans from animals**

- a) sapronoses
- b) zoonoses**
- c) anthroponoses

- d) -
- e) -

**52. Genetically engineered vaccines are used for specific prophylaxis of:**

- a) hepatitis A
- b) hepatitis B**
- c) hepatitis C
- d) poliomyelitis
- e) tuberculosis

**53. Skin test with specific allergens is used for diagnosis of:**

- a) tuberculosis**
- b) enteric fever
- c) staphylococcal infection
- d) influenza
- e) cholera

**54. Choose a NON-serological reaction**

- a) Complement fixation test
- b) Ring test
- c) Slide agglutination
- d) Tube agglutination
- e) PCR**

**55. Which of the following tests is serological reaction?**

- a) color probe
- b) Ring test**
- c) urease activity
- d) Hemagglutination of virus
- e) PCR

**56. Choose the soluble factor of innate antibacterial immunity:**

- a)interferon
- b) IgE
- c) macrophages
- d) lysozyme**
- e) urease

**57. Choose a member of family Enterobacteriaceae**

- a) P.aeruginosa
- b) C.perfringens
- c) L.interrogans
- d) S.typhi**
- e) S.pneumoniae

**58. Name the main (basic) method for laboratory diagnosis of staphylococcal infection**

- a) immunofluorescent method
- b) bacteriological method**
- c) skin test
- d) molecular genetic method
- e) serological method



**59. Choose the microorganism which produces toxin, acting on protein synthesis:**

- a) **C.diphtheriae**
- b) M.pneumoniae
- c) C.trachomatis
- d) L.interrogans
- e) M.tuberculosis

**60. Choose the soluble factor of innate antiviral immunity:**

- a) **interferon**
- b) IgD
- c) macrophages
- d) lysozyme
- e) protease

**61. Choose the biopreparation, which is used for passive specific prophylaxis of infectious diseases:**

- a) hormones
- b) probiotics
- c) antibiotics
- d) **serums**
- e) vitamins

**62. Choose the biopreparation, which is used for passive specific prophylaxis of infectious diseases:**

- a) hormones
- b) probiotics
- c) antibiotics
- d) **immunoglobulins**
- e) vitamins

**63. Name the bacterium, which is used in probiotic preparations**

- a) **Lactobacillus**
- b) Clostridium
- c) Staphylococcus
- d) Borrelia
- e) Mycoplasma

**64. Name the bacterium, which is used in probiotic preparations**

- a) **Bifidobacterium**
- b) Klebsiella
- c) Staphylococcus
- d) Leptospira
- e) Chlamydia

**65. Which staining technique is used for detection of C.diphtheriae?**

- a) **Neisser's stain**
- b) Romanowsky-Giemsa stain
- c) Burry-Gins stain
- d) Silver impregnation
- e) Acid fast stain

**66. Which immunoglobulin ensures local immunity?**

- a) IgG
- b) IgM
- c) IgA**
- d) IgE
- e) IgD

**67. Which toxin changes water-salt balance?**

- a) Cholera toxin**
- b) Botulinum toxin
- c) Endotoxin
- d) Diphtheriae toxin
- e) Anthrax toxin

**68. Which toxin is regarded to superantigens?**

- a) Cholera toxin
- b) Botulinum toxin
- c) Endotoxin
- d) Diphtheriae toxin
- e) Staphylococcal enterotoxin**

**69. Superantigen is toxin which induces:**

- a) excessive production of proteolytic enzymes
- b) excessive release of cytokines and T-cell proliferation**
- c) decrease nucleic acid and protein synthesis
- d) causes endotoxic shock
- e) change of water-salt balance

**70. Which immunoglobulin is synthesized initially during primary infectious disease?**

- a) IgG
- b) IgM**
- c) IgA
- d) IgE
- e) IgD

**71. Which immunoglobulin is synthesized during recurrent infection?**

- a) IgG**
- b) IgM
- c) IgA
- d) IgE
- e) IgD

**72. Which method is used for detection of toxin in the clinical specimen?**

- a) Serological method**
- b) Immunofluorescent method
- c) Skin test
- d) Bacterioscopic method
- e) Electron microscopy

**73. Which cells participate in innate and adoptive immunity simultaneously?**

- a) B-cells
- b) Erythrocytes

- c) **Macrophages**
- d) Neutrophils
- e) NK-cells

**74. Which microorganism can't be cultivated on artificial solid media?**

- a) **Treponema pallidum**
- b) Staphylococcus aureus
- c) Escherichia coli
- d) Klebsiella pneumoniae
- e) Bacillus cereus

**75. Which microorganism can't be cultivated on artificial solid media?**

- a) **Chlamydia trachomatis**
- b) Staphylococcus epidermidis
- c) Salmonella typhi
- d) Mycobacterium tuberculosis
- e) Bacillus anthrax

**76. Antitoxic immunity is induced by inoculation of:**

- a) antibiotics
- b) bacteriophages
- c) probiotics
- d) **toxoids**
- e) live vaccines

**77. Choose the combined live vaccine**

- a) **MMR**
- b) DTP
- c) DT
- d) pyobacteriophage
- e) BCG

**78. Toxoid is used for specific prophylaxis of**

- a) **tetanus**
- b) mumps
- c) measles
- d) tuberculosis
- e) meningococcal infection

**79. Toxoid is used for specific prophylaxis of**

- a) **diphtheria**
- b) rubella
- c) varicella
- d) influenza
- e) pneumococcal infection

**80. Subunit vaccine is used for specific prophylaxis of**

- a) tetanus
- b) mumps
- c) measles
- d) tuberculosis
- e) **meningococcal infection**

**81. Subunit vaccine is used for specific prophylaxis of**

- a) diphtheria
- b) rubella
- c) varicella
- d) influenza
- e) pneumococcal infection**

**82. Which serological reaction is used for diagnosis of typhoid fever?**

- a) PCR
- b) CFT
- c) tube agglutination**
- d) ring test
- e) RIA

**83. Which serological reaction uses particulate antigen?**

- a) passive agglutination test**
- b) ring precipitation
- c) flocculation test
- d) Ouchterlony method
- e) ordinary diffusion in gel

**84. Which method of laboratory diagnosis is useless for diagnosis of syphilis?**

- a) microscopy
- b) serological method
- c) immunofluorescent method
- d) biological method**
- e) genetic engineering method

**85. Which method of sterilization is used for serums?**

- a) ultraviolet radiation
- b) chemical exposition
- c) filtration**
- d) hot air oven
- e) X-ray

**86. Name the cellular factor of innate immunity:**

- a) NK-cells**
- b) T-lymphocytes
- c) B-lymphocytes
- d) Precursor cells
- e) erythrocytes

**87. Positive result in paired serum for diagnosis of infectious disease means**

- a) 2-fold or more increase in antibody titer
- b) 4-fold or more increase in antibody titer**
- c) 8-fold or more increase in antibody titer
- d) 16-fold or more increase in antibody titer
- e) 32-fold or more increase in antibody titer

**88. Choose the method of rapid diagnosis for infectious diseases:**

- a) skin test

- b) inoculation into animals
- c) immunofluorescent method**
- d) bacteriological method
- e) paired serums

**89. Choose the microorganism which can form capsule**

- a) Mycoplasma pneumoniae
- b) Chlamydia trachomatis
- c) Leptospira interrogans
- d) Bacillus anthracis**
- e) Mycobacterium tuberculosis

**90. Choose the microorganism which lacks cell wall**

- a) Staphylococcus aureus
- b) Mycoplasma pneumoniae**
- c) Escherichia coli
- d) Treponema pallidum
- e) Brucella abortus

**91. Choose the microorganism which can form capsule**

- a) Mycoplasma hominis
- b) Chlamydia pneumoniae
- c) Clostridium perfringens**
- d) Treponema pallidum
- e) Mycobacterium bovis

**92. Choose the most rapid test of diagnosis among enumerated serological reactions**

- a) Immunoblotting
- b) ELISA
- c) Ouchterlony test
- d) Latex-agglutination**
- e) Radioimmunoassay

**93. Which serological reaction is used for measurement of activity of serums, which are applied in treatment of infections?**

- a) ELISA
- b) Flocculation reaction**
- c) Latex-agglutination
- d) Immunoblotting
- e) Slide agglutinations

**94. Which infectious disease is treated by antitoxic serum?**

- a) Tuberculosis
- b) Brucellosis
- c) Syphilis
- d) Mycoplasmal pneumonia
- e) Botulism**

**95. Which infectious disease is treated by antitoxic serum?**

- a) Trachoma
- b) Diphtheria**
- c) Gonorrhoea

- d) Brucellosis
- e) Typhoid fever

**96. Which infectious disease is treated by antitoxic serum?**

- a) Dysentery
- b) Gas gangrene**
- c) Syphilis
- d) Leptospirosis
- e) Legionellosis

**97. Which method is used for recommendation of rational treatment of infectious diseases?**

- a) ELISA
- b) Disc diffusion test**
- c) Biochemical activity of microorganism
- d) Production of pigment by microorganism
- e) Radioimmunoassay

**98. Beta-lactamase activity is ensured by enzyme:**

- a) protease
- b) DNA-ase
- c) hyaluronidase
- d) penicillinase**
- e) lecithinase

**99. Choose the infectious disease in which phage typing is widely used for epidemiological analysis:**

- a) Dysentery
- b) Typhoid fever**
- c) Coli-enteritis
- d) Botulism
- e) Campylobacteriosis

**100. Choose the microorganism which can form spores**

- a) Mycoplasma pneumoniae
- b) Chlamydia pneumoniae
- c) Leptospira interrogans
- d) Bacillus anthracis**
- e) Mycobacterium tuberculosis

101. Choose the microorganism which can form spores

- a) Mycoplasma hominis
- b) Chlamydia pneumoniae
- c) Clostridium perfringens**
- d) Treponema pallidum
- e) Mycobacterium africanum

**102. Choose the microorganism which lacks cell wall:**

- a) Mycoplasma pneumoniae**
- b) Klebsiella pneumoniae
- c) Streptococcus pneumoniae
- d) Chlamydia pneumoniae
- e) Actinomyces bovis

**103. All prokaryotes lack:**

- a) ribosomes
- b) fimbriae
- c) mitochondria**
- d) inclusions
- e) flagella

**104. L-forms of bacteria lack:**

- a) plasmids
- b) inclusions
- c) cytoplasmic membrane
- d) ribosomes
- e) cell wall**

**105. Hepatitis A is diagnosed by:**

- a) biological method
- b) skin test
- c) bacteriological method
- d) serological method**
- e) chicken embryo

**106. Hepatitis B is diagnosed by:**

- a) bacteriological method
- b) serological method**
- c) chicken embryo
- d) biological method
- e) skin test

**107. Serums are sterilized by:**

- a) Filtration**
- b) Ultraviolet radiation
- c) Hot air oven
- d) Chemical sterilization
- e) Boiling

**108. AIDS is diagnosed by:**

- a) bacteriological method
- b) serological method**
- c) microscopy
- d) biological method
- e) skin test

**109. AIDS is diagnosed by:**

- a) Slide agglutination
- b) ELISA**
- c) Latex agglutination
- d) Flocculation
- e) CFT

**110. Escherichia coli is typical inhabitant of:**

- a) oral cavity

- b) stomach
- c) skin
- d) small intestine
- e) **large intestine**

**111. Choose the antibiotic which inhibits cell wall synthesis**

- a) lincomycin
- b) fluconazol
- c) nalidixic acid
- d) rifamycin
- e) **carbenicillin**

**112. Choose the antibiotic which inhibits cell wall synthesis**

- a) clindamycin
- b) ciprofloxacin
- c) chloramphenicol
- d) **vancomycin**
- e) polymyxin E

**113. Choose the antibiotic which inhibits DNA synthesis**

- a) clindamycin
- b) **ciprofloxacin**
- c) chloramphenicol
- d) vancomycin
- e) polymyxin B

**114. Choose the antibiotic which inhibits protein synthesis**

- a) **clindamycin**
- b) ciprofloxacin
- c) cycloerine
- d) vancomycin
- e) polymyxin E

**115. Choose the antibiotic which is ineffective against Mycoplasma:**

- a) tetracycline
- b) **penicillin G**
- c) doxycycline
- d) azithromycin
- e) clarithromycin

**116. Choose the antibiotic which is used for treatment of mycoses:**

- a) nafcillin
- b) ceftioxin
- c) **clotrimazole**
- d) erythromycin
- e) chloramphenicol

**117. Choose the microorganism which lacks capsule:**

- a) Bacillus anthracis
- b) Staphylococcus aureus
- c) Streptococcus pneumoniae
- d) Klebsiella pneumoniae



e) **Leptospira interrogans**

**118. Choose the microorganism which is monotrichous:**

- a) Escherichia coli
- b) Salmonella enteritidis
- c) Proteus vulgaris
- d) Vibrio cholerae**
- e) Pseudomonas aeruginosa

**119. Choose the microorganism which lacks endotoxin:**

- a) Escherichia coli
- b) Salmonella enteritidis
- c) Neisseria meningitidis
- d) Streptococcus pyogenes**
- e) Pseudomonas aeruginosa

**120. Choose the microorganism which lacks O-antigen:**

- a) Klebsiella pneumoniae
- b) Streptococcus pneumoniae**
- c) Pseudomonas aeruginosa
- d) Escherichia coli
- e) Salmonella enteritidis

**121. Choose the enzyme which has antiphagocytic activity in virulent bacteria:**

- a) coagulase**
- b) lecithinase
- c) hyaluronidase
- d) collagenase
- e) DNA-ase

**122. Choose the microorganism, producing neurotoxin:**

- a) Streptococcus pyogenes
- b) Bacillus cereus
- c) Proteus vulgaris
- d) Clostridium botulinum**
- e) Brucella abortus

**123. Choose the microorganism, producing neurotoxin:**

- a) Streptococcus pneumoniae
- b) Bacillus subtilis
- c) Salmonella typhimurium
- d) Bacteroides fragilis
- e) Clostridium tetani**

**124. Choose the microorganism which possesses cord-factor:**

- a) Mycobacterium tuberculosis**
- b) Mycoplasma pneumoniae
- c) Neisseria meningitidis
- d) Streptococcus pneumoniae
- e) Prevotella melaninogenica

**125. Choose the method which is useful for retrospective diagnosis of infection after complete recovery of patient**

- a) Bacteriological method
- b) Biological method
- c) PCR
- d) Serological method**
- e) Microscopy

**126. Choose the drug which is ineffective in treatment of viral diseases**

- a) penicillin G**
- b) ribavirin
- c) acyclovir
- d) amantadine
- e) azidothymidine

**127. Choose the drug which is used in treatment of herpesviral diseases**

- a) penicillin G
- b) ribavirin
- c) acyclovir**
- d) amantadine
- e) azidothymidine

**128. Choose the drug which is used in treatment of influenza**

- a) penicillin G
- b) pyobacteriophage
- c) acyclovir
- d) amantadine**
- e) azidothymidine

**129. Choose the drug which is used in treatment of AIDS**

- a) penicillin G
- b) ribavirin
- c) acyclovir
- d) amantadine
- e) azidothymidine**

**130. Choose the doubling time for Mycobacterium tuberculosis:**

- a) 14-16 seconds
- b) 14-16 minutes
- c) 14-16 hours**
- d) 14-16 days
- e) 14-16 days

**131. Choose the family which contains naked virions:**

- a) Picornaviridae**
- b) Flaviviridae
- c) Rhabdoviridae
- d) Orthomyxoviridae
- e) Herpesviridae

**132. Choose the viruses which possess the enzyme reverse transcriptase inside the virion:**

- a) Retroviruses**

- b) Picornaviruses
- c) Reoviruses
- d) Adenoviruses
- e) Orthomyxoviruses

**Correct answers: 1b, 2b, 3c, 4e, 5c, 6c, 7d, 8a, 9a, 10a, 11a, 12a, 13b, 14b, 15e, 16e, 17d, 18b, 19b, 20a, 21e, 22d, 23c, 24c, 25e, 26a, 27c, 28b, 29e, 30e, 31d, 32c, 33a, 34b, 35c, 36b, 37b, 38c, 39a, 40d, 41b, 42a, 43a, 44d, 45a, 46b, 47a, 48b, 49c, 50a, 51b, 52b, 53a, 54e, 55b, 56d, 57d, 58b, 59a, 60a, 61d, 62d, 63a, 64a, 65a, 66c, 67a, 68e, 69b, 70b, 71a, 72a, 73c, 74a, 75a, 76d, 77a, 78a, 79a, 80e, 81e, 82c, 83a, 84d, 85c, 86a, 87b, 88c, 89d, 90b, 91c, 92d, 93b, 94e, 95b, 96b, 97b, 98d, 99b, 100d, 101c, 102a, 103c, 104e, 105d, 106b, 107a, 108b, 109b, 110e, 111e, 112d, 113b, 114a, 115b, 116c, 117e, 118d, 119d, 120b, 121a, 122d, 123e, 124a, 125d, 126a, 127c, 128d, 129e, 130c, 131a, 132a**