

# MCQS on Bacteria

1. The most widely used reference for bacterial classification is.....
  - A. Bergey's manual of systemic bacteriology
  - B. Mechanism of bacteriology
  - C. Bacteriology, metabolism and mechanism of reproduction
  - D. Taxonomic classification of bacteria
  
2. .... is the branch of biology that studies the morphology, ecology genetics and biochemistry of bacteria as well as many aspects related to them.
  - A. Mycology
  - B. Bacteriology
  - C. Enzymology
  - D. Planetology
  
3. Which of the given is not the distinguishing feature of spirochete?
  - A. A helical shape
  - B. An ability to twist or contort their shape (flexibility)
  - C. The occurrence of special kind of flagella termed periplasmic flagella
  - D. Eukaryotic and obligate parasitic
  
4. Periplasmic flagella in spirochete is also known as.....
  - A. Axial fibrils
  - B. Endoflagella
  - C. Both A and B
  - D. Exoflagella
  
5. Periplasmic flagella of gram-negative eubacteria are located in the ..... of the cell
  - A. Periplasmic space

- B. Outer membrane
- C. Inner membrane
- D. Matrix or cytoplasm

6. Spirochetes can exhibit ..... motility when in contact with solid surface.

- A. Creeping
- B. Crawling
- C. Both A and B
- D. None of the above

7. Most of the spirochetes are too..... that they cannot be easily seen by light microscopy even when Gram stained.

- A. Small measured in picometer
- B. Thin
- C. Large measure in millimeter
- D. Coiled

8. Which of the given statement is not true for spirochetes?

- A. Highly flexible
- B. Have periplasmic flagella
- C. Exclusively parasitic
- D. Helical

9. Which of the given statement is true for spirochetes?

- A. Saprophytic or Parasitic
- B. Rigid
- C. Cytoplasmic flagella
- D. Linear

10. ....are the bacteria like forms that are obligate parasitic of protozoa, arthropods or other host; often beneficial to their host; have not been isolated or cultivated.

- A. Mycoplasmas
- B. Endosymbionts
- C. Rickettsias
- D. Chlamydias

11. .... lack cell walls.

- A. Gram positive Bacteria
- B. Gram negative bacteria
- C. Mycoplasmas
- D. Algae

12. Which of the given is not the character of mycoplasmas?

- A. Soft and Plastic
- B. Motile
- C. Lack cell wall
- D. Parasites and Saprophytes

13. Which of the given is not the character of rickettsias and chlamydias?

- A. Flexible
- B. Intracellular parasites of human, other animals and arthropods
- C. Tiny cells
- D. Can be isolated and cultivated in host cell

14. Which of the given is not the character of gram-negative cocci?

- A. Fermentative
- B. Rigid

- C. Nonmotile
- D. Symbiotic

15. Which of the given statement is not true for sulfur reducing bacteria?

- A. Anaerobic
- B. Saprophytic and parasitic
- C. Use sulfur compound as electron donor
- D. Anaerobic

16. Which of the given is the characteristics of anaerobic, Gram negative straight, curved and helical rods?

- A. Anaerobic respiration does not use sulfur compounds as electron acceptor
- B. Parasites
- C. Obtain energy by fermentation
- D. All of the above

17. Which of the given is the characteristics of aerobic, motile and Gram-negative bacteria?

- A. Motile by polar flagella
- B. Oxidative type of metabolism
- C. Saprophytic or parasitic
- D. All of the above

18. Which of the given is not the feature of aerobic gram-negative rods and cocci?

- A. Straight and slightly curved
- B. Oxidative type of metabolism
- C. Obligatory saprophytic
- D. Fermentative type of metabolism

19. Which of the given is the character of facultatively aerobic Gram-negative rod?

- A. Flexible
- B. Obligatory symbiotic
- C. Both saprophytic and parasitic
- D. Straight or slightly curved

20. .... microscopy is maximally used for spirochetes.

- A. Light microscopy
- B. Compound microscopy
- C. Dark field microscopy
- D. Simple microscopy

21. The order Spirochitales is distinguished into family.....

- A. Leptospiraceae
- B. Spirochaetaceae
- C. Both A and B
- D. Pseudomonadaceae

22. Organisms include in spirochaetaceae are.....

- A. Stringent anaerobe
- B. Facultative anaerobe
- C. Microaerophiles
- D. All of the above

23. Organisms include in family Leptospiraceae are.....

- A. Aerobe
- B. Stringent anaerobe
- C. Facultative anaerobe

D. Microaerophiles

24. .... is the harmless parasite of freshwater and marine molluscs

- A. **Cristispira**
- B. Treponema
- C. Borrelia
- D. None of the above

25. .... is found in mouth, intestinal tract and genital tract of human and animal.

- A. Cristispira
- B. **Treponema**
- C. Borrelia
- D. None of the above

26. ....organism is pathogenic in nature.

- A. Cristispira
- B. **Treponema**
- C. Leptospira
- D. None of the above

27. .... organism causes hog dysentery.

- A. **Treponema hyodysenteriae**
- B. Treponema pallidum
- C. Treponema dysenteriae
- D. All of the above

28. ....species causes syphilis in humans and is macroaerophilic

- A. *Treponema hyodysenteriae*
- B. *Treponema pallidum*
- C. *Treponema dysenteriae*
- D. All of the above

29. *Treponema pallidum* species causes..... in humans and is macroaerophilic.

- A. Bacillary dysentery
- B. Cholera
- C. Pallidectomies
- D. Syphilis

30. .... causing louseborne or tickborne relapsing fever in humans

- A. *Treponema*
- B. *Cristispira*
- C. *Borrelia*
- D. *Spirochaeta*

31. .... is pathogenic and causes leptospirosis in animals and humans.

- A. *Leptospira interrogans*
- B. *Leptospira biflexa*
- C. *Leptospira lipoforum*
- D. None of the above

32. Which of the given is a harmless inhabitant of freshwater environment?

- A. *Treponema pallidum*
- B. *Treponema hyodysenteriae*
- C. *Leptospira interrogans*
- D. *Leptospira biflexa*

33. Which of the given is not a character of Aquaspirillum?

- A. Bipolar organism that typically possess bipolar tufts of flagella
- B. Harmful saprophyte
- C. Aerobic to microaerophilic
- D. Growth occurs in 3% NaCl or sea water

34. .... fix atmospheric nitrogen within plant roots or in library.

- A. Treponema
- B. Borrelia
- C. Azospirillum
- D. Aquaspirillum

35. .... can grow autotrophically with hydrogen gas as the energy source.

- A. A.lipoferum
- B. Treponema
- C. Borrelia
- D. Aquaspirillum

36. Which of the given is not the character of Oceanospirillum?

- A. Anaerobic
- B. Harmless saprophyte
- C. Sea water required for growth
- D. All of the above

37. Which of the given is not a character of campylobacter?

- A. Single flagellum at one or both poles
- B. Microaerophilic parasites
- C. Occur in the reproductive organ, Intestinal tract and oral cavity
- D. All are pathogenic



38. .... causes diarrhea in humans.

- A. *Campylobacter jejuni*
- B. Spirosomaceae
- C. *Treponema pallidum*
- D. None of the above

39. .... causes abortion in cattle.

- A. *Campylobacter fetus subspecies venerealis*
- B. *Campylobacter jejuni*
- c. Spirosomaceae
- d. *Treponema pallidum*

40. Which of the given is a character of *Bdellovibrio*?

- A. Vibrioid cell possesses a single flagellum
- B. Parasite of other Gram-negative bacteria
- C. Makes host bacterium an empty host
- D. All of the above

41. Genus..... attack eukaryotic algae, not bacteria.

- A. *Vampirovibrio*
- B. *Campylobacter jejuni*
- c. Spirosomaceae
- d. *Treponema pallidum*

42. Family Spiromonaceae contains three genera except,

- A. *Runella*
- B. *Spirosoma*
- C. *Flectobacillus*

D. **Vampirovibrio**

43. Which of the given is not a characteristic of Spirosomacea?

- A. Aerobic
- B. **Form intracellular gas vacuoles**
- C. Catalase positive
- D. Oxidase positive

44. Genus..... forms prominent intracellular gas vacuole and whose colonies have no pigment.

- A. Spirosoma
- B. Runella
- C. Flectobacillus
- D. **Microcyclus**

45. In family Spirosomaceae, genus..... forms colonies that are yellow.

- A. **Spirosoma**
- B. Runella
- C. Flectobacillus
- D. Microcyclus

46. In family Spirosomaceae, genus..... forms colonies that are pink.

- A. Spirosoma
- B. Runella
- C. Flectobacillus
- D. **Both B and C**

47. In family Spirosomaceae, genus..... forms colonies that are non-pigmented.

- A. Spirosoma
- B. Runella
- C. Flectobacillus
- D. Microcyclus

48. Which of the given is not the character of aerobic gram-negative rods and cocci?

- A. Some cells are mainly straight or slightly curved
- B. Strictly respiratory type of metabolism
- C. All are strictly anaerobic
- D. Some cells are cocci

49. Which of the given is not the character of family pseudomonaceae?

- A. Straight or slightly curved rods
- B. Motile by polar flagella
- C. Catalase negative
- D. Usually, oxidase positive

50. Genus Pseudomonas contains ..... genetically distinct groups.

- A. Three
- B. Five
- C. Seven
- D. Nine

51. Pseudomonas aeruginosa produces water soluble blue pigment.....

- A. Pyocyanin
- B. Pyoverdin
- C. Anthocyanin
- D. Carotene

52. Pseudomonas aeruginosa produces water soluble fluorescent pigment.....

- A. Pyocyanin
- B. Pyoverdin
- C. Anthocyanin
- D. Carotene

53. Which of the given is not a characteristic of *Pseudomonas aeruginosa*?

- A. Soil and water saprophyte
- B. Opportunistic pathogen
- C. Isolated from wound, burn and urinary tract infections
- D. Gram positive organism

54. *Pseudomonas* ..... is a non-fluorescent species that is also frequently isolated from clinical specimen.

- A. Maltophilia
- B. Fluorescens
- C. Faecalis
- D. Delbruckei

55. *Pseudomonas* ..... make fluorescent pigment.

- A. Maltophilia
- B. Fluorescens
- C. Aeruginosa
- D. Syringae

56. *Pseudomonas* ..... causes disease such as leaf spot, leaf stripe, wilt and necrosis.

- A. Maltophilia
- B. Fluorescens
- C. Aeruginosa
- D. Syringae

57. Pseudomonas ..... is a causative agent of glanders and farcy disease of horses and donkeys that are transmissible to humans.

- A. Maltophilia
- B. Mallei
- C. Fluorescens
- D. Aeruginosa

58. Pseudomonas mallei is a causative agent of disease of horses and donkeys that are transmissible to humans.

- A. glanders and farcy
- B. Hepatocellular carcinoma
- C. Arthritis
- D. Encephalitis

59. Pseudomonas syringe causes disease such as

- A. Leaf spot
- B. Leaf stripe
- C. Wilt and necrosis
- D. All of the above

60. Pseudomonas ..... causes melioidosis in animals and humans.

- A. Pseudomallei
- B. Maltophilia
- C. Mallei
- D. Fluorescens

61. The genus from characteristics .....pigment called xanthomonadians.

- A. Red
- B. Orange

- C. Yellow
- D. Brown

62. The genus from characteristics yellow pigment called

- A. xanthomonadians
- B. Pyocyanins
- C. Pyoverdin
- D. Carotinosine

63. Which of the given statement is not true about Xanthomonas?

- A. Forms characteristic blue pigment
- B. All the species are pathogenic to plants
- C. Used in industrial application
- D. Cause disease such as spots, streaks, Canker

64. Which of the given disease is caused by Xanthomonas?

- A. Cankers
- B. Wilts
- C. Rots
- D. All of the above

65. Xanthomonas makes viscous exocellular..... which are useful for industrial applications.

- A. Nucleic acid
- B. Polysaccharide
- C. Mucin and heme component
- D. None of the above

66. Which of the given is an industrial application of Xanthomonas?

- A. Stabilizer in food
- B. Anti-drip agent in paint
- C. Both A and B
- D. None of the above

67. Which of the given is not the character of Zoogloea?

- A. Cell embedded in a gelatinous matrix to form slimy masses with a fingerlike morphology.
- B. Symbiotic organism
- C. Commonly found in coating of rocks on trickling filter beds in sewage plants
- D. Oxidize the soluble organic components of the sewage

68. .... is Commonly found in coating of rocks on trickling filter beds in sewage plants where they oxidize the soluble organic components of the sewage

- A. Zoogloea
- B. Xanthomonas
- C. Pseudomonas
- D. None of the above

69. Which of the given is not the character of family Azotobacteraceae?

- A. Saprophyte
- B. Can be motile or non-motile
- C. Fix N<sub>2</sub> under anaerobic condition
- D. Both A and B

70. Which of the given is the characteristics of family Azotobacteraceae?

- A. Symbiotic
- B. Strictly non motile
- C. Large blunt rods, oval cells or cocci
- D. Fix N<sub>2</sub> under anaerobic condition

71. One genus Azotobacter forms desiccation resistant .....

- A. Cyst
- B. Lagoon
- C. Bloom
- D. Acantoin

72. .... bacteria fix N<sub>2</sub> by means of complex, highly evolved symbiosis with the root of leguminous plants.

- A. Rhizobium
- B. Bradyrhizobium
- C. Both A and B
- D. None of the above

73. Rhizobium fix atmospheric.....

- A. Carbon
- B. Nitrogen
- C. Sulfur
- D. Oxygen

74. Rhizobium bacteria fix N<sub>2</sub> by means of complex, highly evolved ..... with the root of leguminous plants.

- A. Symbiotic
- B. Parasitic
- C. Saprophytic
- D. Free

75. Within the root nodule Rhizobium exist as a highly pleomorphic N<sub>2</sub> fixing form called.....

- A. Legumesuria



- B. Bacteroids
- C. Mycoroids
- D. None of the above

76. .... occurs within the root nodules and serve to protect the nitrogenase enzyme complex from being destroyed by excess oxygen.

- A. Leghemoglobin
- B. Hemoglobin
- C. Anthocyanin
- D. Anthrylene

77. Leghemoglobin occurs within the root nodules and serve to protect the ..... enzyme complex from being destroyed by excess oxygen.

- A. Carboxylase
- B. Nitrogenase
- C. Peroxidase
- D. Hydrogenase

78. Leghemoglobin occurs within the root nodules and serve to protect the nitrogenase enzyme complex from being destroyed by excess .....

- A. Nitrogen
- B. Oxygen
- C. Carbon
- D. Hydrogen

79. .... do not fix N<sub>2</sub>.

- A. Agrobacterium
- B. Rhizobium
- C. Bradyrhizobium
- D. None of the above

80. .... organism is a plant pathogen

- A. Agrobacterium
- B. Rhizobium
- C. Bradyrhizobium
- D. None of the above

81. Agrobacterium is a plant pathogen that incite..... when they invade the crown, roots and stem of a great variety of dicotyledonous and some gymnospermus plants.

- A. Rot
- B. Tumor
- C. Wilt
- D. All of the above

82. .... is a plant pathogen that incite tumor when they invade the crown, roots and stem of a great variety of dicotyledonous and some gymnospermus plants.

- A. Pseudomonas
- B. Xanthomonas
- C. Agrobacterium
- D. Rhizobium

83. Agrobacterium tumor induction is associated with the presence in the bacteria of a particular.....

- A. Chloroplast
- B. Plasmid
- C. Ribosome
- D. RER

84. Family Methylococcaceae have the ability to use ..... gas as a sole carbon and energy source.

- A. Methane
- B. Propane
- C. Butane
- D. Pentane

85. Family ..... have the ability to use methane gas as a sole carbon and energy source.

- A. Methylococcaceae
- B. Carbylococceae
- C. Butaneaceae
- D. None of the above

86. Which of the given organism comes under family Methylococcaceae?

- A. Methylococcus
- B. Methylomonas
- C. Methylocandium
- D. Both A and B

87. Which of the given is not a characteristics of family Methylococcaceae?

- A. Ability to use methane gas as a sole carbon and energy source
- B. Some members of the family fix nitrogen under microaerophilic condition
- C. Family consists of cocci shaped bacteria only
- D. Occur in soil, Mud, Water

88. ....family contains ellipsoidal to rod shaped cells that oxidize ethanol to acetic acid in neutral or acidic media.

- A. Methylococcaceae
- B. Xanthomonaceae

C. Acetobacteraceae

D. None of the above

89. Acetobacteraceae family contains ellipsoidal to rod shaped cells that oxidize ..... to acetic acid in neutral or acidic media.

A. Methanol

B. Methane

C. Ethanol

D. Ethane

90. Acetobacteraceae family contains ellipsoidal to rod shaped cells that oxidize ethanol to in neutral or acidic media.

A. Methane

B. Ethane

C. Acetic acid

D. Propionic acid

91. Acetobacteraceae family contains ellipsoidal to rod shaped cells that oxidize ethanol to in..... media.

A. Neutral

B. Acidic

C. Both A and B

D. None of the above

92. Family Acetobacteraceae contains genera included.....

A. Acetobacter

B. Gluconobacter

C. Acinetobacter

D. Both A and B

93. Acetobacter contains..... flagella.

- A. Peritrichous flagella
- B. Polar flagella
- C. No flagella
- D. None of the above

94. Gluconobacter contains..... flagella.

- A. Peritrichous flagella
- B. Polar flagella
- C. No flagella
- D. None of the above

95. Acetobacter are industrially used to make.....

- A. Paints
- B. Papers
- C. Acetic acid
- D. All of the above

96. Gluconobacter are industrially used to make.....

- A. Chemicals
- B. Papers
- C. Acetic acid
- D. All of the above

97. Gluconobacter are industrially used to make chemical .....

- A. Dihydroxyacetone
- B. Sorbose
- C. 5-ketogluconic acid
- D. All of the above

98. Some strains of ..... have the highly unusual ability to make exocellular cellulose fibrils that accumulates around the cell.

- A. Acetobacter
- B. Pseudomonas
- C. Xanthomonas
- D. Methylobacter

99. Some strains of acetobacter have the highly unusual ability to make exocellular .....fibrils that accumulates around the cell.

- A. Peptidoglycan
- B. Cellulose
- C. Chitin
- D. None of the above

100. Which of the given is not a character of Acetobactereaceae family?

- A. Oxidize acetic acid to ethanol
- B. Flagellated
- C. Found in acidic environment
- D. All of the above

101. The family Ligonellaceae are .....shaped bacteria.

- A. Cocci
- B. Spiral
- C. Rod
- D. Comma

102. The family Ligonellaceae are rod shaped bacteria require L-cysteine, iron salt, and activated powder charcoal for .....

- A. Growth

- B. Autolysis
- C. Competitive inhibition
- D. All of the above

103. The family ..... are rod shaped bacteria require L-cysteine, iron salt, and activated powder charcoal for growth.

- A. **Legionellaceae**
- B. Xanthomonaceae
- C. Acetobacteraceae
- D. None of the above

104. The family Legionellaceae are rod shaped bacteria require ..... for growth.

- A. L-cysteine
- B. Iron salt
- C. Activated powder charcoal
- D. **All of the above**

105. Bacteria which comes under Legionellaceae family comes under single genera.....

- A. **Legionella**
- B. Legionicella
- C. Legionella
- D. None of the above

106. Organisms which comes under family Legionellaceae are motile with..... flagella.

- A. Polar
- B. Lateral
- C. **Both A and B**
- D. None of the above

107. Organisms which comes under family Ligionellaceae are opportunistic pathogens of humans causing .....

- A. Legionellosis
- B. Aspergillosis
- C. Candidiasis
- D. None of the above

108. Which of the given is not a character of family Neisseriaceae?

- A. Motile
- B. Rods or cocci
- C. Catalase positive
- D. Oxidase positive

109. Which of the given is an example of family Neisseriaceae?

- A. Neisseria
- B. Acinetobacter
- C. Both A and B
- D. Pseudomonas

110. Which of the given is a characteristic of Neisseria?

- A. Mostly occur in pairs
- B. Oxidase positive cocci
- C. Catalase positive cocci
- D. All of the above

111. The ..... are parasites that inhabit the mucous membrane of human and animals.

- A. Neisseriae
- B. Rhizobia



- C. Agrobacterium
- D. None of the above

112..... is a causative agent of Gonorrhoeae.

- A. N. gonorrhoeae
- B. N. elongata
- C. N. meningitidis
- D. All of the above

113. .... is a causative agent of epidemic cerebrospinal meningitis.

- A. N. gonorrhoeae
- B. N. elongata
- C. N. meningitidis
- D. All of the above

114. Which of the given is not a characteristic of Acinetobacter?

- A. Catalase positive
- B. Oxidase Positive
- C. Saprophytic
- D. Opportunistic pathogen

115. Which of the given is not a characteristic of Enterobacteriaceae?

- A. Straight rods
- B. Oxidase positive
- C. Contains enterobacterial common antigen
- D. Motility if present by means of lateral flagella

116. .... causes gastroenteritis

- A. E. coli

- B. Staphylococcus
- C. Rhizobium
- D. Agrobacterium

117..... causes bacillary dysentery in humans.

- A. Salmonella
- B. Shigella
- C. E. coli
- D. Pseudomonas

118. E. coli causes

- A. Gastroenteritis
- B. Bacillary dysentery
- C. Hepatocellular carcinoma
- D. None of the above

119. Shigella causes ..... in humans.

- A. Gastroenteritis
- B. Bacillary dysentery
- C. Hepatocellular carcinoma
- D. None of the above

120. Salmonella causes.....

- A. Typhoid
- B. Paratyphoid
- C. Gastroenteritis
- D. All of the above

121. Salmonella causes.....

- A. Septicemia
- B. Gastroenteritis
- C. Tumor
- D. Both A and B

122. Which of the given is not a character of Enterobacter?

- A. Grow best at 15 to 25 degreeCelsius
- B. Occur mainly in water, sewage, soil, meat, plant
- C. Some are opportunistic pathogens
- D. Some found in human and animal species

123. Erwinia is a plant pathogen causes disease such as.....

- A. Blights
- B. Cankers
- C. Die back
- D. All of the above

124. Erwinia is a plant pathogen causes disease such as.....

- A. Discoloration of plant tissue
- B. Wilts
- C. Soft rots
- D. All of the above

125. Serratia produces .....colonies.

- A. Green
- B. Pink or red
- C. Golden yellow
- D. Creamy white

126. Which of the given is not a characteristic of Serratia?

- A. Found in soil, water and on plant surface
- B. Produces golden yellow colonies
- C. Can be opportunistic ho human
- D. Prone to infect hospital patient

127. .... organism can swarm on agar media.

- A. Proteus
- B. Yersinia
- C. Klebsiella
- D. Staphylococcus

128. .... is one of the leading causes of urinary tract infection in humans.

- A. Proteus mirabilis
- B. E. coli
- C. Pseudomonas
- D. None of the above

129. .... are parasite of animals but can also cause infections in humans

- A. Agrobacterium
- B. Yersiniae
- C. Serratia
- D. None of the above

130. .... is a causative agent of plague.

- A. Yersinia pestis
- B. Proteus mirabilis
- c. E. coli
- D. Pseudomonas

131. *Yersinia pestis* is a causative agent of .....

- A. Tumor
- B. Plague
- C. Ebola
- D. Wilts

132. *Yersinia enterocolitica* is a frequent cause of ..... in children.

- A. Gastroenteritis
- B. Tumor
- C. Plague
- D. Ebola

133. .... is a frequent cause of gastroenteritis in children.

- A. *Yersinia enterocolitica*
- B. *Yersinia pestis*
- C. *Proteus mirabilis*
- D. *E. coli*

134. Which of the given is not the character of family *Vibrionaceae*?

- A. Curved or straight rods
- B. Motile by means of polar flagella
- C. Oxidase positive
- D. Cells contain enterobacterial common antigen

135. *Vibrionaceae* organisms ..... require for growth of some genera.

- A. Na<sup>+</sup>
- B. Ca<sup>+</sup>
- C. Mg<sup>++</sup>
- D. H<sup>+</sup>

136. .... have a flagellum covered by a membrane (sheathed flagella).

- A. **Vibrio**
- B. Yersinia
- C. Staphylococcus
- D. None of the above

137. .... is a causative agent of cholera.

- A. *Vibrio anguillarum*
- B. ***Vibrio cholerae***
- C. *Vibrio parahaemolyticus*
- D. *Vibrio fischeri*

138. *Vibrio* occur in an aquatic habitat with a wide range of.....

- A. Temperature
- B. **Salinities**
- C. pH
- D. Ammonia

139. Some *Vibrio* species can emit .....color called Bioluminescence.

- A. Red
- B. Orange
- C. **Blue green**
- D. Yellow

140. Some *Vibrio* species can emit blue green color called

- A. Bioluminescence
- B. Chemiluminescence
- C. **Both A and B**

D. None of the above

141. In bioluminescence vibrio shows an oxygen dependent reaction catalyzed by the enzyme.....

- A. Catalase
- B. Peroxidase
- C. Luciferase
- D. Oxidase

142. In bioluminescence vibrio shows an .....dependent reaction catalyzed by the enzyme luciferase.

- A. Carbon
- B. Oxygen
- C. Nitrogen
- D. Hydrogen

143. In ..... vibrio shows an Oxygen dependent reaction catalyzed by the enzyme luciferase.

- A. bioluminescence
- B. Chemiluminescence
- C. Catenated
- D. Anointed

144. .... occurs in a specialized luminous organ of certain deep-sea fishes.

- A. *Vibrio anguillarum*
- B. *Vibrio cholerae*
- C. *Vibrio parahaemolyticus*
- D. *Vibrio fischeri*

145. .... causes gastroenteritis in humans.

- A. *Vibrio anguillarum*
- B. *Vibrio cholerae*
- C. *Vibrio parahaemolyticus*
- D. *Vibrio fischeri*

146. .... is a pathogen of marine fish and eels.

- A. *Vibrio anguillarum*
- B. *Vibrio cholerae*
- C. *Vibrio parahaemolyticus*
- D. *Vibrio fischeri*

147. *Vibrio parahaemolyticus* causes .... in humans.

- A. Gastroenteritis
- B. Tumor
- C. Meningitis
- D. None of the above

148. *Aeromonas salmonicida* is a causative agent of furunculosis in salmon and trout.

- A. *Aeromonas salmonicida*
- B. *Pseudomonas aeruginosa*
- C. *Staphylococcus aureus*
- D. *Streptococcus*

149. *Aeromonas salmonicida* is a causative agent of.....in salmon and trout.

- A. Furunculosis
- B. Meningitis
- C. Tumor
- D. None of the above



150. Which of the given is not a character of Aeromonas?

- A. Straight rod
- B. Non sheathed flagella
- C. All species are non-pathogenic
- D. Occur in freshwater and sewage

151. Which of the given is not a characteristics of Pasteurellaceae?

- A. Straight rod
- B. Non motile
- C. Oxidase negative
- D. Na<sup>+</sup> is not required for growth

152. Which of the given is not a characteristic of Pasteurellaceae?

- A. Parasite of vertebrates
- B. Simple nutrition requirement
- C. Na<sup>+</sup> is not required for growth
- D. Do not contain the enterobacterial common antigen

153. .... is the organism which is parasitic on the mucous membrane of the upper respiratory tract of mammals.

- A. Pasteurella
- B. Pseudomonas
- C. Acinetobacter
- D. Achromobacter

154. Pasteurella is the organism which is parasitic on the ..... of the upper respiratory tract of mammals.

- A. mucous membrane

- B. Epidermal layer
- C. Skin layer
- D. None of the above

155. Pasteurella is the organism which is parasitic on the mucous membrane of the upper respiratory tract of.....

- A. Birds
- B. Mammals
- C. Both A and B
- D. None of the above

156. Pasteurella ..... causes hemorrhagic septicemia in cattle and fowl cholera in domestic and wild birds.

- A. Multocida
- B. Capricum
- C. Influenza
- D. Parasiticus

157. Pasteurella multocida causes ..... in cattle and fowl cholera in domestic and wild birds.

- A. hemorrhagic septicemia
- B. Tumor
- C. Hepatocellular carcinoma
- D. None of the above

158. Pasteurella multocida causes hemorrhagic septicemia in cattle and ..... in domestic and wild birds.

- A. Tumor
- B. Hepatocellular carcinoma
- C. fowl cholera
- D. None of the above

159. .... species occur as a parasite of the mucous membrane of humans and animals.

- A. Hemophilus
- B. Methanogen
- C. Achromobacter
- D. Agrobacteria

160. .... is a leading cause of meningitis in children.

- A. Haemophilus influenza
- B. Xanthomonas
- C. Pseudomonas
- D. None of the above

161. Which of the given is a characteristic of Haemophilus ?

- A. Require heme and coenzyme nicotinamide adenine dinucleotide
- B. Parasite of mucous membrane of humans and animals
- C. Some pathogenic for humans
- D. All of the above

162. Haemophilus are distinguished by..... complex nutritional requirement.

- A. X factor, heme occurring in blood
- B. V factor coenzyme adenine dinucleotide
- C. Both A and B
- D. None of the above

163. Which of the given is not a characteristic of Actinobacillus?

- A. Parasitic on mammal and birds
- B. Several species are pathogenic for animals
- C. Organisms are always pathogenic for humans

D. None of the above

164. Actinobacillus .....causes granulomatous lesions in cattle and sheep.

- A. Cerevisiae
- B. Lignieresii
- C. Suis
- D. Violaceum

165. Actinobacillus lignieresii causes .....in cattle and sheep.

- A. granulomatous lesions
- B. Tumor
- C. Wilts
- D. Necrotic mucor

166. Actinobacillus ..... causes septicemia, Pneumonia and arthritis in pigs.

- A. Cerevisiae
- B. Lignieresii
- C. Suis
- D. Violaceum

167. Actinobacillus suis causes..... in pigs.

- A. Septicemia
- B. Pneumonia
- C. Arthritis
- D. All of the above

168. Which of the given is not a character of Zymomonas?

- A. Saprophytic rods
- B. Spoilage organism in beer and cider

- C. Forms large amount of ethanol from methane
- D. None of the above

169. Zymomonas forms large amount of ..... from glucose.

- A. Acetic acid
- B. Ethanol
- C. Methane
- D. Butyric acid

170. Zymomonas forms large amount of ethanol from .....

- A. Methanol
- B. Glucose
- C. Acetic acid
- D. Butyric acid

171. Which of the given is not a character of chromobacterium?

- A. Non motile
- B. Rod shaped bacterium
- C. Forming violet colonies
- D. Occasionally cause infection to humans

172. Which of the given is a characteristic of chromobacterium?

- A. Non motile
- B. Cocci shaped
- C. Forming violet colonies
- D. Harmless pathogen

173. Chromobacterium organism have the unusual property of forming ..... colonies.

- A. Pink
- B. Yellow
- C. Red
- D. Violet

174. Chromobacterium organism have the unusual property of forming violet colonies due to a pigment called.....

- A. Violacein
- B. Violecrin
- C. Anthocyanin
- D. Carotene

175. The species Chromobacterium ..... occurs as a saprophyte in soil and water but can occasionally cause infection of humans and other animals.

- A. Faecalis
- B. Cerevisiae
- C. Violaceum
- D. Vaginalis

176. Which of the given is not the characteristics of Gardnella?

- A. Non motile
- B. Pleomorphic rod
- C. Gram positive
- D. None of the above

177. Which of the given is a characteristic of Gardnella?

- A. Motile
- B. Pleomorphic cocci
- C. Gram negative
- D. All of the above

178. Gardnerella ..... occurs in the genitourinary tract and is a major cause of bacterial nonspecific vaginitis.

- A. Haemophilis
- B. Albicans
- C. Vaginalis
- D. Moniliformis

179. Gardnerella vaginalis occurs in the genitourinary tract and is a major cause of bacterial nonspecific .....

- A. Tumor
- B. Vaginitis
- C. Agglutination of blood
- D. None of the above

180. Gardnerella vaginalis occurs in the ..... and is a major cause of bacterial nonspecific vaginitis.

- A. Kidney
- B. Genitourinary tract
- C. Lungs
- D. Gastrointestinal tract

181. Which of the given is not a characteristic of streptobacillus?

- A. Pleomorphic cocci
- B. L- phase variants may occur spontaneously
- C. Have defective cell wall
- D. More or less spherical in shape

182. Streptobacillus forms tiny ..... colonies similar to those formed by mycoplasmas.

- A. Violet wrinkled
- B. Creamy white irregular
- C. Fried egg
- D. None of the above

183. .... forms tiny fried egg colonies similar to those formed by mycoplasmas.

- A. Streptobacillus
- B. Staphylococcus
- C. E. coli
- D. Acetobacter

184. Streptobacillus forms tiny fried egg colonies similar to those formed by.....

- A. Mycoplasmas
- B. Staphylococci
- C. Streptococcus
- D. Pseudomonas

185. Streptobacillus ..... is a parasite of rats and causes one form of rat bite fever in humans.

- A. Licheniformis
- B. Moniliformis
- C. Aeruginosa
- D. Ptutida

186. Streptobacillus moniliformis is a parasite of rats and causes one form of rat bite ..... in humans.

- A. Tumor
- B. Fever
- C. Kidney failure
- D. Lung failure



187. Streptobacillus moniliformis is a parasite of rats and causes one form of rat bite fever in .....

- A. Birds
- B. Reptiles
- C. Humans
- D. All of the above

188. Which of the given is not the feature of family Bacteroidaceae?

- A. Anaerobic organism
- B. Form endospore
- C. May be motile or non-motile
- D. Do not respire anaerobically by using inorganic sulfur compounds as an electron acceptor

189. Which of the given is a feature of family Bacteroidaceae?

- A. Aerobic organism
- B. Forms endospore
- C. Strictly non motile
- D. Respire anaerobically

190. Most bacteroidaceae species produce detectable amount of ..... as the result of their fermentative metabolism.

- A. Proteins
- B. Organic acid
- C. Enzymes
- D. Fatty acids

191. Some bacteroidaceae species do respire anaerobically with .....

- A. Nitrate

- B. Fumarate
- C. Aspartate
- D. Both A and B

192. Bacteroides .....is the most common anaerobic bacterium isolated from human soft tissue infections and anaerobic blood infections.

- A. Aeruginosa
- B. Fragilis
- C. Paratyphi
- D. None of the above

193. Bacteroides .....is the most common anaerobic bacterium isolated from

- A. Human soft tissue infections
- B. Anaerobic blood infections
- C. Plant crown infection
- D. Both A and B

194. Which of the given is not a character of Bacteroids.

Straight rods

Strictly motile

Motile by peritrichous flagella

None of the above

195. Bacteroides produce .....organic acid end product of fermentation.

Succinate

Lactate

Propionate

All of the above

196. Fusobacterium produce..... as a major organic acid end product of fermentation.

**Butyrate**

Succinate

Lactate

Propionate

197. Which of the given is a characteristic feature of fusobacterium?

Cocci

**Non motile**

Succinate is a major organic end product of fermentation

None of the above

198. Which of the given is not a characteristic feature of succinimonas?

Short rods or coccobacilli

**Non motile**

Have single polar flagella

All of the above

199. Succinimonas produce..... as a major organic acid end product of fermentation.

Succinate

Acetate

**Both A and B**

None of the above

220. Which of the given is a characteristic of bacteroidaceae?

Spore forming

Most have fermentative type of metabolism

Cause respiratory tract infection

Endospore forming