Paper Code - 3127

B.Sc. Semester-I (New Course) (Microbiology)
July - Sept -2021
Introduction to Microbiology and Microbial Diversity (Theory)

કુલ સમય :– ૬૦ મીનીટ કુલ પ્રશ્નો : ૫૦ વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૩૫

નોંધ : વિદ્યાર્થીએ માત્ર ૩૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૩૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

1. Which of the following bacteria was not discovered by Robert Koch?
   A. Bacillus anthracis **B.** Mycobacterium tuberculosis **C.** Salmonella typhi **D.** Vibrio cholerae
2. Which of the following scientist first described the usefulness of Azotobacter as a free-living nitrogen-fixing bacteria?
   A. H. Hellriegel **B.** H. Wilfarth **C.** Martinus willem Beijerinick **D.** Sergei Winogradsky
3. Which of the following scientist first showed mutually beneficial relationship between bacteria and leguminous plants?
   A. H. Hellriegel and H. Wilfarth **B.** Nocard and Roux
   C. Sergei Winogradsky and Martinus Willem Beijerinck **D.** Welch and Nuttall
4. All of the following scientist got Nobel Prize for their contribution in the field of Microbiology except..
   A. Antony Van Leeuwenhoek **B.** Elie Metchnikoff **C.** Paul Ehrlich **D.** Robert Koch
5. All of the following scientist supported the idea of "spontaneous generation" of animals except:
   A. John Aristotle **B.** Francesco Redi **C.** Needham **D.** Felix Archimede Pouchet
6. Which of the following scientist tried to disprove Spontaneous generation theory by passing air through cotton into flasks containing heated broth?
   A. Franz Schulze **B.** H. Schroder and T. Von Dusch **C.** Lazaro Spallanzani **D.** Theodor Schwann
7. Which of the following scientist tried to disprove spontaneous generation theory by passing air into his flasks through red hot tubes?
   A. Franz Schulze **B.** H. Schroder and T. Von Dusch **C.** Lazaro Spallanzani **D.** Theodor Schwann
8. Which of the following scientist tried to disprove Spontaneous generation theory by using simple goose necked flasks?
   A. Franz Schulze **B.** H. Schroder and T. Von Dusch **C.** Louis Pasteur **D.** Theodor Schwann
9. Which of the following scientist tried to disprove Spontaneous generation theory passing air through strong acid solutions into boiled infusions?
   A. Franz Schulze **B.** H. Schroder and T. Von Dusch **C.** Louis Pasteur **D.** Theodor Schwann
10. Which of the following scientist carried out experiment in a specially designed box to prove dust carried the germs?
    A. H. Schroder and T. Von Dusch **B.** John Tyndall **C.** Lazaro Spallanzani **D.** Louis Pasteu
11. Which of the following foods is NOT made by fermentation?
    A. beer **B.** bread **C.** cheese **D.** orange juice
12. Who is considered the "father of Western medicine"?
    A. Marcus Terentius Varro **B.** Thucydides **C.** Antonie van Leeuwenhoek **D.** Hippocrates
13. Who was the first to observe "animalcules" under the microscope?
    A. Antonie van Leeuwenhoek **B.** Ötzi the Iceman **C.** Marcus Terentius Varro **D.** Robert Koch
14. Who proposed that swamps might harbor tiny, disease-causing animals too small to see?
    A. Thucydides **B.** Marcus Terentius Varro **C.** Hippocrates **D.** Louis Pasteur
15. Which of the following was NOT a kingdom in Linnaeus's taxonomy?
    A. animal **B.** mineral **C.** protist **D.** plant
16. Which of the following is a correct usage of binomial nomenclature?
    A. Homo Sapiens **B.** homo sapiens **C.** Homo sapiens **D.** Homo Sapiens
17. Which scientist proposed adding a kingdom for protists?
    A. Carolus Linnaeus **B.** Carl Woese **C.** Robert Whittaker **D.** Ernst Haeckel
18. Which of the following is NOT a domain in Woese and Fox's phylogenetic tree?
    A. Plantae **B.** Bacteria **C.** Archaea **D.** Eukarya
19. Which of the following is the standard resource for identifying bacteria?
    A. Systema Naturae **B.** Bergey's Manual of Determinative Bacteriology
    C. Woese and Fox's phylogenetic tree **D.** Haeckel's General Morphology of Organisms
20. Which of the following types of microorganisms is photosynthetic?
    A. yeast **B.** virus **C.** helminth **D.** alga
21. Which of the following is a prokaryotic microorganism?
    A. helminth **B.** protozoan **C.** cyanobacterium **D.** mold
22. Which of the following is a cellular?
    A. virus **B.** bacterium **C.** fungus **D.** protozoan
23. Which of the following is a type of fungal microorganism?
    A. bacterium **B.** protozoan **C.** alga **D.** yeast

24. Which of the following is not a subfield of microbiology?
A. bacteriology **B.** botany **C.** clinical microbiology **D.** virolog
25. A virus is made up of……
A. Protein coat and nucleic acid **B.** Protein coat and mitochondria
C. Nucleic acid and cell membrane **D.** Nucleic acid, cell wall and cell membrane
26. The protein coat of viruses that enclose the genetic material is called……..
A. Virion **B.** Capsid **C.** Peplomers **D.** Capsomers
27. Which of the following statements are true about a virion?
A. Lytic phage **B.** Lysogenic phage **C.** The viral capsid **D.** An infectious and fully formed viral particle
28. Which of the following is the genome of the virus?
A. DNA **B.** RNA **C.** DNA or RNA **D.** DNA and RNA
29. Which of the following is the largest virus?
A. Megavirus chilensis **B.** Arbo virus **C.** Herpes virus **D.**
30. Which of the following statements are true about the capsomeres?
A. It is an individual unit of the capsid **B.** It is a viral protein for replication
C. It is a unit of nucleic acid in viruses **D.** All of the above
31. Which of the following statements are true about the peplomeres?
A.It is an individual unit of capsids **B.** It is a spike-like projection on the enveloped viruses
C. It is a projection on the viral membrane **D.** It is a spike-like projection on the capsids
32. An icosahedral capsid consists of_.....
A. Hexagonal capsomeres **B.** Pentagonal capsomeres **C.** Triangular capsomeres **D.** Both a and b
33. Which of the following has a complex symmetry?
A. T4 phage **B.** Adenovirus **C.** nfluenza virus **D.** All of the above
34. The viral envelope is made up of ……..._.
A. Proteins **B.** Glycoproteins **C.** Lipids and Proteins **D.** All of the above
35. Which of the following is a helical virus?
A. TMV **B.** T4 phage **C.** Poxvirus **D.** Herpes virus
36. Which of the following statements are true about the viruses?
A. Free-living **B.** Obligate parasites **C.** Both (a) and (b) **D.** None of the above
37. A fully formed infectious viral particle is called ……..
A. Virion **B.** Viriod **C.** Capsid **D.** Virusoid
38. The genetic constituent of viruses is……
A. RNA **B.** DNA **C.** ss DNA **D.** DNA or RNA
39. The viral genome is enveloped in a protein coat known as
A. Capsid **B.** Outer envelope **C.** Capsomere **D.** Nucleic
40. Which of the following statements are true about the tobacco mosaic virus (TMV)?
A. RNA virus **B.** DNA virus **C.** Bacteriophage **D.** ss DNA or ds DNA
41. The shape of the TMV is……...
A. Rod-shaped **B.** Oval shaped **C.** Cuboidal shaped **D.** Spherical shaped
42. 18. Viruses that attack bacteria are called……._.
A. Virophage **B.** Lysophage **C.** Bacteriophage **D.** None of the above
43. The T2 phage is called……..
A. ss DNA phage **B.** ss RNA phage **C.** ds DNA phage **D.** ds RNA phage
44. Bacteriophages that induce bacterial cell lysis are called_____.
A. Viroids **B.** Lysogenic phages **C.** Virulent phages **D.** Temperate phages
45. Which of the following virus has the smallest genome?
A. Rabies virus **B.** Circovirus **C.** Herpes virus **D.** Mimi virus
46. Infectious RNA particles without the protein coat are called……...
A. Prion **B.** Virion **C.** Viroid **D.** Virusoid
47. The spike-like projections on the viral capsid are known as
A. Viriod **B.** Proteomes **C.** Peplomers **D.** capsomeres
48. Viral genome inserted to the bacterial DNA is termed as……..
A. Lysogeny **B.** Prophage **C.** Lytic cycle **D.** Virulent phage
49. Which of the following are the main functions of the capsid?
A. Determines the antigenic specificity of the virus **B.** Protects genetic material from nuclease attack
C. Both A and B **D.** None of these
50. Which part of the compound microscope helps in gathering and focusing light rays on the specimen to be viewed?
A. Eyepiece lens **B.** Objective lens **C.** Condenser lens **D.** Magnifying lens