Pharmaceutical Microbiology

1. Retroviruses have unique enzyme which is
   a] DNA-dependent-RNA-polymerase
   b]RNA-dependent-DNA-polymerase
   c] DNA polymerase
   d] RNA polymerase

2. Infectious RNA particles without protein are
   a] Viroid
   b] Virion
   c] Virusoid
   d] Prion

3. Spike projections on the outer surface of virus is
   a] Capsomeres
   b] Peplomeres
   c] Proteomeres
   d] Viroid

4. In Virion structure, regulatory protein is present which is known as
   a] Cell membrane
   b] Tegument
   c] Antigen
   d] Coat

5. Which of the following enzyme is present on the surface of the influenza virus ?
   a] Transcriptase
   b] Neutraminidase
   c] Neuraminidase
   d]Galactosidase

6. The demonstration that viruses could be crystallized like chemicals was given by _____.
   a) Geirer
   b) Schramm
   c) Stanley
   d) None of this

7. The extraction of 'infectious nuclic acid' from a virus was first proposed by_____.
   a) Stanley

b) Schramm
c) Geirer
d) Both b & c
e)

8. Which kind of symmetry is encountered in the capsid?
a) Cubical
b) Hexagonal
c) Helical
d) Both a & c

9. The capsid is composed of large number of _____ which forms its morphological unit.
a) Polypeptide
b) Capsomers
c) Nucleocapsid
d) Peplomers

10. The isosahedral capsid consists of _____ vertices.
a) 4
b) 12
c) 8
d) 16

11. 1……was first discovered in 1909 by haward Ricketts.

a)ricketsiae

b)fungi

c)algae

d)bacteria

12. Chloroplast are mainly present in……

a)animal cell

b)plant cell

c)bacterial cell

d)fungal cell

13. Silkworm disease discoverd by ….

a)Paul Enrich

b)Lister

c)Pasteur

d)Hata

14. The credit for providing foundation to bacteriology as a science goes to….

a)louis Pasteur

b)anthrax

c)koach

d)hooke

15. What do the term dimorphic mean…..

a)bisexuai

b)unisexual

c)exist in two form

d)exist in single form

16. Primary characteristics of viruses include all, except
a] Chemical Nature of nucleic acids
b] Structure of Virion
c] Site of replication
d] Host range

17. Complex symmetrical virus is
a] Adeno
b] Papova
c] Pox
d] Parvo

18. Select the correct sequence for the following taxonomic group –
Order – Family – Subfamily – Genus
a] Virinae – Viridae – Virus – Virales
b] Viridae – Virales – Virinae – Virus
c] Virus – Virales – Virinae – Virus
d] Virales – Viridae – Virinae – Viridae

19. RNA virus with positive sense nucleic acid are all except
a] Toga
b] Retro
c] Corona

d] Picorna

20. Earlier viruses has been classified on the basis of
a] Organs they infect
b] Host range
c] Mode of transmission
d] Specific surface transmission

21. Classification of viruses has been based upon -------- properties.

a. chemical b. physical

c. physicochemical d. all the above

22. Site of replication in viruses at ----------

a. nucleus b. cytoplasm

c. both a and b d. mesosome

23. Which of the following is the secondary characteristics of viruses ?

a. Specific suface structures b. Site of replication

c. Structure of virion d.Chemical nature of nucleic acid

24. In viruses,within the genera the number of species may vary from ----

a. one to more than 100 b. one to less than 100

c. one to 100 d. one to 10

25. A nucleic acid that encodes information for making proteins needed by viruses is called as ---------

a. sense nucleic acid b. negative nucleic acid

c. positive sense nucleic acid d. positive nucleic acid

26. The acidic pH of traditional Sabouraud agar is _____.

A) 5.9 **B) 5.6**

C) 6.2 D) 6.8

27. Sabouraud agar is a type of agar growth medium containing _____.

A) Peptides B) HCl

C) Peptones D) Glucose

28. The standard temperature for incubation of fungi is _____.

A) 40^0C B) 50^0C

C) 30^0C D) 20^0C

29. _____ is used for the subculture of Aspergillus species.

A) Mycobiotic agar B) Potato dextrose agar

C) Inhibitory mold agar **D) Czaper agar**

30. Potato Dextrose-yeast extract agar (PDYA) media is good for growing cultures derived from _____.

A) Mushroom B) Wood

C) Fungi D) Basidomycetes

31. Viral DNA replicates in_____.

a) Cytoplasm b) vacuole

c) **Nucleus** d) Mitochondria

32. Which of the following stage does not involve in replication of viruses?

a) Adsorption b) Uncoating

c) Entry d) **protein Binding**

33. Viruses can multiply in_____ .

a) **Living cell**. b) Non living cell

c) Plant cell. d) Both (a) and (b).

34. Fusion of nuclei in fungi is _____ .

a) **Karyogamy** b) Progamy

c) Microgamy. d) Pregamy

35. A fully assembled infectious virus is called as_____ .

a) Micron b) **virion**

c) Prion d) None of these.

36. AIDS (acquire immino deficiency syndrome) Day is ……..

a) may1

b**)December 1**

c)December 20

d)June 1

37. AIDS was first reported in……

a)Russia

b)France

c)Germany

d)**U.S.A**

38. All of the following except one are CD4+ Cell….

a)monocyte

b)**T helper cell**

c)t cytotoxic cell

d) mycrophages

39. Which immune marker is present during the window period of HIV infection…..

a) P24 antigen

b) Antibodies to GP 120

c) Antibodies to GP41

d) **P 17 Antigen**

40. Choose the odd man out

a) **Gag**

b) Tat

c)Nif

d) Rev

41.Which of the following virus is now believed to be leading cause for cervical cancer in women ?

a] HIV virus
b] Human Papilloma virus
c] Herpes virus
d] Pox virus

42. Which of the following virus that causes inflammation in brain was studied by postdoctoral researcher and author James White ?

a] West Nile virus
b] Mosquito-borne virus
c] Both of these
d] None

43. Genetically Modified (GM) mosquitoes maintain their resistance to malarial parasite for

a] 3-4 years
b] 8-9 years
c] 2-5 years
d] 6-7 years

44. Nipah Virus is the member of

a] Paraviridae
b] Myxoviridae
c] Paramyxoviridae
d] None

45. Rotavirus is also known as

a] Stomach Flu
b] Hepatitis virus
c] Coronavirus
d] None

46. White nose syndrome is caused by which fungus?

a)Burkholderia
b)Saccharomyces cerevisiae
c)Pseudogymnoscus destrectans
d)Rhizopus Microsporus

47. CBM18 is key event of which pathogenecity?

a)Batrachochytrium Dendrobatidis
b)Perigord black truffles
c)Both a and b
d)None of the above

48. Fecal Microbiota transplantation (FMT) is effective in_____?

a)Mucuromycosis
b)Clostridium Difficilie infection(CDI)
c)Piriformospora indica
d) None of the above

49. Which Bacteria can reduce virulence of a plant pathogen?

a)Wheat Microbiome bacteria
b)Exophiala Dermetitidis
c)Aspergillus Fumigatus
d)Beauveria bassiana

50. The study report on mitrogen activated protein invented by_____?

a)Alexander Idnurm
b)Magnaporthe Oryzae
c)Allain Jacquier
d)None of the above

51. Fungi are defined as or present as

(a) Non- Motile eukaryotic organism.

(b) Motile prokaryotic organism.

(c) Non- motile prokaryotic organism.

(d) Autotrophs.

52. Fungi morphologically are

(a) Simple oval cells.

(b) Long tubular cells.

(c) Both (a) and (b).

(d) None of these.

53. Fungi are

(a) Autotrophs.

(b) Chemoautotrophs.

(c) Organic Compounds for Energy and carbon.

(d) Both (b) and (c)

54. Majority of Fungi are present in

(a) Soil.

(b) Water.

(c) Both (a) and (b)

(d) None of these.

55. Fungi consists of concentration of sugar in laboratory media are

(a) 1 to 2%

(b) 2 to 3%

(c) 4 to 5%

(d) 6 to 7%

56. Scientific classification of fungi includes?

a) Opisthokonta
b) Holomycota
c) Both a and b
d) None of the above

57. The diameter of fungi is_____?

a) 2-10 micrometer
b) 3-8 micrometer
c) Both a and b
d) None of the above

58. Subkingdom of fungi?

a) Mucuromycosis
b) Blastocladiomycota

c) Microsporidia
d) None of the above

59. Bacidomycota and subkingdom dikarya together called as_____?
a) Sac Fungii Or Ascomycetes
b) Exophiala Dermetitidis
c) Aspergillus Niger
d) None of the above

60. Study of historical and sociological impact of fungi is known as_____?
a) Oncology
b) Ethnomycology
c) Antibiotic
d) None of the above

61. study of viruses is know as: a) Mycologyb) parasitology **c) virology** d) bacteriology

62. the process of sterilization is used in diary industry is : **a) pasteurization** b) tyndallization c) fermentation d) segregation

63. Microorganisms which grow in presence of oxygen are called: a**) Areobic** b) Microscopic c) Anaerobic d) none of the above

64. which is the following smallest bacterium? a) N. gonorrhea b) M.Tuberculosis **c) Mycoplasma** d) vibrio chlolerae

65. Backbone of cell wall in prokaryotes is: a) lipopolysaccharide b) polypeptide **c) Murein** d) protein

66. the purpose of the staining is to demonstrate: a) cell size b) cell shape c) arrangement of bacterial cells **d) all the above**

67. acid-fast staining is also know as: a) negative staining b) AFB staining c) Ziel-Neelsen staing **d) Both b&c**

68. The process of killing viable spore of microorgnisum are: a) Disinfection
b) sanitization **c) sterilization** d) filtration

69. Paraffin oil can be sterilized by: **a) hot air sterilization** b)Moist heat sterilization
c)filtration d) disinfection

70. Best autoclaving is achieved at: **a) 121^{0}C for 15minutes** b) 120^{0}C for 1hour c) 110^{0}C for 2hours d) 110^{0}C for 3hours.

71. Fungi are defined as or present as(a) Non- Motile eukaryotic organism. (b) Motile prokaryotic organism **(c) Non- motile prokaryotic organism** (d) Autotrophs.

72. Fungi consists of concentration of sugar in laboratory media are (a) 1 to 2% (b) 2 to 3% **(c) 4 to 5%** (d) 6 to 7%

73. Reserve food material of fungi is ? A) Starch B) Protein C) Glucose **D) Glycogen**

74. Which chemical is widely used for disinfection of dairy equipments? A] Agcn and H3po2 **B] Ca(ocl2) and Naocl** C] Naoh and Febr D] all of the above.

75. The presence of which acid in bacterial spore make it more resistant to disinfection? A] nucleic acid **B] pitoic acid** C] dipicolnic acid D] none of these

76. Which ion destroys the amino acid bond in nucleic acid and precipitate proteins? **A] oh** B] co3 C] no2 D] H

77. Why strong acid and alkalies are not useful? **a. Corrosive** b. Non-corrosive c. Metal d. Non-metal

78. process of killing microorganisms including spore is: a) Disinfection b) sanitization **c) sterilization** d) filtration

79. ----------is a good disinfectant in aqueous or alcoholic solution a)Alcohol **b) Halogens** c) Iodine d) Dyes

80. Alcohol concentration above----------are effective against viruses. a)90% b)80% c)60% **d)70%**

81. The micro-organism used for microbiological assay of thiamine ……..
1. Bacillus Pumilus
2. Lactobacillus Casei
3. Staphylococcus epidermidis
4. Ochpomonas danica

82. Test micro-organism used for microbiological assay of tetracycline ……
1. Staphylococcus epidermidis
2. Staphylococcus aureus
3. Bacillus pumilus
4. Bacillus subtilis

83. Diffusion of antibiotic takes place in …….
1. Turbidity method
2. Cylinder plate
3. Both
4. None of these

84. In assay of vit. B_{12} indicator is used as …….
1. Thymol blue
2. Bromocresol blue
3. Bromophenol blue
4. Bromothymol blue

85. Organism used for streptomycin assay is ……..
1. Bacillus Cereus ATCC 11778
2. Bacillus Subtilis ATCC 6633
3. Bacillus Subtilis ATCC 3366
4. Bacillus Cereus ATCC 6633

86. The method of microbiological assay are ……
a) Cup-Plate or Cylinder-Plate method
b) Turbidimetric or Tube assay method
c) Dropler Method
d) both a & b

87. Test micro-organism used for microbiological assay of Neomycin is ……
1. Bacillus Pumilus
2. Staphylococcus aureus
3. Staphylococcus epidermidis
4. Bacillus Subtilis

88. The micro-organism used of microbiological assay of vitamin B_{12} is …….
1. Lactobacillus Leichamannii
2. Poteriochromonas Stipitata
3. Lactobacillus Virdescens
4. Lactobacillus Plantarum

89. In broth dilution test, the final inoculum used for determination of minimum inhibitory concentration (MIC) of antimicrobial compound is ……
1. 10_3 CF U/M
2. 106 CF U/M
3. 107 CF U/M
4. 10_{10} CF U/M

90. The methods of microbiological assay of cynocobalamine (B_{12}) are ……
1. Turbidimetric Method
2. Titrimetric Method
3. Bothe of the above
4. None of this

91.The micro-organisms used for micro-biological assay of Gentamicin is

A. Staphylococcus aureus
B. Bacillus subtilis
C. Staphylococcus epidermidis
D. Bacillus pumilus

92. Which solvent used for standard solution or erythromycin is

a. Methanol
b. Water
c. Buffer solution
d. Ethanol

93. Test micro-organisms used for microbiological assay of Thiamine is

a. Lactobacillus uiridescens
b. Lactobacillus plantarum
c. Lactobacillus leichamnniii
d. Lactobacillus cusei

94. Maintain a culture on slants of the medium under the incubation condition of Rifampicin is

a. 36-37.5 ^{0}C
b. 32-35 ^{0}C
c. 29-31^{0}C
d. 31-34 ^{0}C

95. Which method used for microbiological assay of anti-biotics is

a. Method A
b. Method B
c. Both A and B
d. None of the above

96. It is necessary to assay antimicrobial agents for determination of ……

1. Valency
2. **Potency**
3. Length
4. Breadth

97. Vitamins are important growth factors needed for growth and multiplication of ……

1. Virus
2. E.coli
3. Bacteria
4. **Micro-organism**

98. The standard preparation and the test antibiotic solution are added in sterile cavities or cylinder prepared in a ……..

1. Liquid medium
2. **Solid medium**

3. Semisolid medium
4. All of these

99. Test micro-organism used for microbiological assay of amphotericin B

1. Saccharomyces Cerevisiae
2. Bacillus Pumilus
3. Staphylococcus aureus
4. Lactobacillus casei

100. Test micro-organism used for micro-biological assay of Biotin (Vit. H)

1. Lactobacillus casei
2. Lactobacillus leichamannii
3. Lactobacillus Plantarum
4. Lactobacillus Veridescens

101. For the sterility testing of ophthalmic product quantity to be used for each culture medium should be

a. 5-10 ml
b. 2-5 ml
c. 5-6 ml
d. 7-12 ml

102. For testing of liquid immiscible with aq. Vehicles and suspension. Sterile enzyme preparations like penicillinase and cellulose is incorporated to help in

a. To accomplish fast and rapid rate of filtration
b. To help in dissolution of insoluble substance
c. To avoid microbial growth

103. Glucose in thioglycollate medium used for sterility testing invariable serves as

a. An inactivator of mercury compounds
b. To augment and promote reducing parameters
c. An-oxidation reduction indicator
d. All of above

104. For oils and oily solutions, recommended culture media have incorporated by

a. Polysorbate 80
b. Polysorbate 20
c. Isopropyl myristate

105. Oxidation reduction potential (En) value of medium should be …….. to enable the growth of anaerobes specifically

a. Low
b. Constant
c. Quiet high
d. Very high

106. .Which chemical is used for the sterility testing which shows antagongist activity

a.Sodium thiosulphate

b.p-hydroxy benzoate ester

c.Lybrol

d.None of the above

107. 2.What is the pH for the growth of the bacteria

a.6-7

b.6-9

c.6-8

d.6-10

108. 3.The presence oh oil n fats reduces the disinfecting ability of----------

a.Alcoholics

b.Phenolic

c.Aldehyde

d.Ketone

109. 4.Which is not true factor affecting the disinfectant---------

a.Temprature

b.Surface tension

c.Concentration of disinfectant

d.Toxicity of agents

110. ----------and----------antimicrobial agents usually have greatest activity in acidic condition.

a.Phenolic and acidic

b.Acidic and ketone

c.Ketone and aldehyde

d.Aldehyde and phenol

111. The effectiveness of disinfectant is generally related to the concentration by which of the following ways-

A] Exponentially B] Linearly

C] No relation C] none of the above

112. The presence of oils and fats markedly does what to the disinfectant ability of the phenolics?

A] Increases B**] Decreases**

C] Some time increase some time decrease D] Does not affect

113. Spores are

A] More resistant than vegetative cells B] Less resistant than vegetative cells

C] Both are equally resistant C] None of the above

114. Generally, antibacterial activity and systematic toxicity both are increased by

A] Halogenation B] Sulphonation

C] Nitration D] Both A and C

115. Up to what length of carbon chain the disinfectant activity is increased?

A] 5 Carbons B] 4 Carbons

C] 7 Carbons **C] 6 Carbons**

116. The critical evolution of the disinfectants may be carried out by-

a]Use of dilution test

b]Filter paper method

c]Both (a) and (b)

d]None of these

117. For AOAC dilution method which strain of micro-organisms are usually employed?

a]Salmonella choleraesuis

b]Staphylococcus aureus

c]Pseudomonas aeruginosa

d]All of above

118. Which alcohol are most frequently used for disinfection?

a]Butyl alcohol (40%)

b]Ethyl alcohol (70%)

c]Ethyl alcohol (90%)

d]None of these

119. Formalin which is used as a disinfectant contains the_____ aqueous solution of formaldehyde gas.

a]40%

b]45%

c]37%

d]20%

120. A bactericidal antibiotic has the following characteristics-

a]Pronounced postantisiotic effect

b] MBC and MIC values

c] Efficacy in absence of host defence

d] All of above

121.Strong acids and alkalies are not specially useful because they are----------

a.Corrosive

b.Weak acid

c.Mineral acid

d.All of the above

122.----------is a good disinfectant in aqueous or alcoholic solution.

a.Alcohol

b.Halogens

c.Iodine

d.Dyes

123.Alcohol concentration above----------are effective against viruses.

a.90%

b.80%

c.60%

d.70%

124.----------are widely used for control of micro-organisms on floor wall,nourishing home.

a.Aldehyde

b.Quaternary compound

c.Alcohol

d.Detergency n soaps

125.Formaldehyde is the main aldehyde used for----------.

a.Sterilization

b.Disinfectant

c.Detergency

d.Antiseptics

126. For the development of antiseptics surgery who used the phenol or carboxylic acid

a. Lister

b. Lewis pastuer

c. Bergey's mannual

d. None of the above

127. Why strong acid and alkalies are not useful?

a. Corrosive

b. Non-corrosive

c. Metal

d. Non-metal

128. Which acids are weakly ionised?

a. Benzoic acid

b. HCL

c. Oxalic acid

d. Acetic acid

129. Which aldehyde is mainly used for the disinfectant?

a. Acetaldehyde

b. Formaldehyde

c. Glutaldehyde

d. Dialdehyde

130. Which compound have the detergent proportion of ionic surfectant combinned with container surfactant.

a.N on ionic detergent

b.Ionic compound

c.Amphotoric

d.All of the above

131. Which chemical is widely used for disinfection of dairy equipments?

A] Agcn and H3po2
B] **Ca(ocl2) and Naocl**
C] Naoh and Febr
D] all of the above.

132. What is the percentage concentration of CH2O in aqueous solution of aldehyde?

A] 68%
B] 50- 80%
C] 34- 380%

D] 20- 29.5 %

133. The presence of which acid in bacterial spore make it more resistant to disinfection?
A] nucleic acid
B] pitoic acid
C] dipicolnic acid
D] none of these

134. Which ion destroys the amino acid bond in nucleic acid and precipitate proteins?
A] oh
B] co3
C] no2
D] H

135. when cresol are emulsified in liquid soaps and alkalis?
A] cresol becomes neutral
B] germicidal property is lost
C] cresol become more germicidal than phenol
D] no effect on cresol