(Microbiology)

1. Protective mechanisms used by bacteria to survive in the host may be

   (A) Capsules
   (B) M protein
   (C) various enzymes
   (D) All of the above

2. Microbes which are capable of growing over a wide range of temperature are called

   (A) Eubacteria
   (B) Thermophilic
   (C) Thermotolerant
   (D) Eurythermal

3. Carbohydrate binding proteins are called

   (A) Lectins
   (B) Defensins
   (C) Lipopolysaccharides
   (D) Peptidoglycans

4. Spliceosomes are absent in cells of

   (A) Plants
   (B) Animals
   (C) Fungi
   (D) Bacteria

5. Bacteria that are resistant to penicillin and related antibiotics produce an enzyme that breaks---------- in these antibiotics.

   (A) Benzene ring
   (B) Side groups (R groups)
   (C) beta-lactam ring
   (D) Disulfide bonds

6. An antimicrobial agent that interferes with translation of mRNA into protein is

(A) Cephalosporin
(B) Chloramphenicol
(C) Mitomycin
(D) Amphotericin B

7. Membrane bound organelles are absent in

(A) *Chlamydomonas*
(B) *Saccharomyces*
(C) *Streptococcus*
(D) *Plasmodium*

8. Endotoxin in Gram negative bacteria is made up of :

(A) Lipoproteins
(B) Peptidoglycan
(C) Lipopolysaccharide
(D) Polypeptide

9. Which of the following has coiled RNA and capsomeres?

(A) Poliovirus
(B) Tobacco mosaic virus
(C) Measles virus
(D) Retrovirus

10. In the laboratory, bacterial cells can be rendered …… .... by the use of cold calcium chloride or electroporation.

(A) Conjugated
(B) Transposable
(C) Competent
(D) Transducible

11. What bacterial gene transfer process is most sensitive to extracellular nucleases?

(A) Generalized transduction
(B) Specialized transduction
(C) Homologous recombination
(D) Transformation

12. What is the peculiarity of Pandoravirus?

(A) Largest virus
(B) Largest viral genome
(C) Smallest virus
(D) Smallest viral genome

13. The first antibody to contact invading micro-organism:

(A) IgG
(B) IgA
(C) IgD
(D) IgM

14. Which of the following is a sexual spore of fungi?

(A) Conidiospore
(B) Ascospore
(C) Sporangiospore
(D) Clamydospore

15. Kojic acid is obtained from

(A) *Nocardia*
(B) *Micrococcus*
(C) *Aspergillus*
(D) *Penicillium*

16. Which of the following structure is absent in Gram positive bacteria?

(A) Cell wall
(B) Teichoic acid
(C) Murein
(D) Outer membrane

17. The only bacterial genus with sterols in their cell wall

(A) *Vibrio*
(B) *Escherichia*
(C) *Mycoplasma*
(D) *Salmonella*

18. Magnetosomes are inclusions of ……in certain bacteria

(A) Iron oxide
(B) Iron phosphate
(C) Iron chloride
(D) Iron nitrate

19. Ehrilch and Hata discovered ------ that was used to treat ---------

(A) salvarsan; syphilis
(B) penicillin; surgical wounds
(C) salvarsan; malaria
(D) prontosil; malaria

20. Agar-agar is obtained from

(A) *Gelidium*
(B) *Polysiphonia*
(C) *Fucus*
(D) *Laminaria*

21. Which of the algae is responsible for red colour of red sea?

(A) *Chlamydomonas brauii*
(B) *Trichodesmium erythrium*
(C) *Ulothrix zonata*
(D) None of the above

22. The resolving power of an optical microscope is :

(A) 0.2 μm
(B) 0.2 nm
(C) 0.2 A°
(D) 0.2 nm

23. Presence of sodium taurocholate in McConkey agar make it a

(A) Differential medium
(B) Basal medium
(C) Selective medium
(D) Enriched medium

24. The third amino acid in the peptidoglycan crosslinking chain is either diaminopimelic acid or lysine because this amino acid must

(A) Be positively charged for a salt bridge to form.
(B) Be hydrophillic.
(C) Have a free amino group for peptide bond formation.
(D) Have a large R-side chain to fill space in the cell wall.

25. Which of the following are most suitable indicators of SO_2 pollution in the environment?

(A) Algae
(B) Fungi
(C) Lichens
(D) Conifers

26. A dikaryon is formed when

(A) Meiosis is arrested
(B) The two haploid cells do not fuse immediately
(C) Cytoplasm does not fuse
(D) None of the above

27. Genes present on the same locus but having different expressions are

(A) Polygenes
(B) Multiple alleles
(C) Pleiotropic genes
(D) Co-dominant genes

28. Chitin is

(A) Sulphur containing polysaccharide
(B) Simple polysaccharide
(C) Nitrogen containing polysaccharide
(D) Phosphorous containing polysaccharide

29. C4 plants are more efficient in photosynthesis than C3 plants due to the

(A) Presence of large number of chloroplasts
(B) Higher leaf area
(C) Lower rate of photorespiration
(D) Presence of thin cuticle

30. Sickle cell anemia shows

(A) Epistasis
(B) Incomplete dominance
(C) Pleiotropy
(D) Co-dominance

31. The polymer of natural rubber is

(A) all trans isoprene
(B) Buna-N
(C) all cis isoprene
(D) None of the above

32. Main constituent of LPG is

(A) Methane
(B) Iso-butane, propane
(C) H2, CH4, Iso-butane
(D) None of the above

33. Which of the following enzymes is used to join two DNA molecules?

(A) Endonucleases
(B) Restriction enzymes
(C) Lyases
(D) Ligases

34. The Km value of an enzyme is

(A) the total enzyme concentration
(B) the substrate concentration at half maximal velocity
(C) half the substrate concentration at maximum velocity
(D) dissociation constant of enzyme substrate complex

35. The enzymes that break hydrogen bonds and unwind are

(A) primases
(B) ligases
(C) helicases
(D) polymerases

36. In prokaryotes

(A) Transcription and translation are coupled
(B) Transcription and processing are coupled
(C) Processing and translation are coupled
(D) Replication and transcription are coupled

37. The 21st aminoacid is

(A) Hydroxyl proline
(B) Hydroxyl lysine
(C) Selenocysteine
(D) Citrulline

38. Absorbance at 280nm exhibited by proteins is due to

(A) all amino acids
(B) aliphatic amino acids
(C) polar amino acids
(D) aromatic amino acids

39. Proteins are separated on the basis of their net charge by

(A) ion exchange chromatography
(B) affinity chromatography
(C) gel filteration chromatography
(D) dialysis

40. Bacterial capsules are generally viewed by

(A) Ziehl-Neelsen staining
(B) Gram staining
(C) Scanning electron microscopy
(D) Negative staining

41. What is the refractive index of oil?

(A) 1.5
(B) 1.0
(C) 0.5
(D) 0.75

42. Approximate generation time of *E.coli* is

(A) 20 minutes
(B) 10 minutes
(C) 25 minutes
(D) 30 minutes

43. The precursor used in the production of pencillin

(A) Phenol
(B) Phenyl acetic acid
(C) Penciiloic acid
(D) Biotin

44. Which among the following is thermoduric bacteria?

(A) Salmonella
(B) Bacillus
(C) Pseudomonas
(D) Flavobacterium

45. Which among the following is not an air borne infection?

(A) Pertussis
(B) Pneumonia
(C) Diphtheria
(D) Typhoid

46. Wine production is favoured by

(A) *Pencil ium chrysogenum*
(B) *Saccharomyces cerevisiae*
(C) *Aspergillus niger*
(D) *Bacillus subtilis*

47. Which organism is coming under GRAS status?

(A) *E.coli*
(B) *P.aeroginosa*
(C) *L.lactis*
(D) *B.subtilis*

48. The byproduct of streptomycin fermentation is

(A) Glutamic acid
(B) Ethanol
(C) Vitamin B12
(D) Riboflavin

49. The typical temperature for an autoclaving is

(A) 121ºC
(B) 100ºC
(C) 180ºC
(D) 160ºC

50. The 1st bacterial genome to be completely sequenced

(A) *Escherichia coli*
(B) *Haemophilus influenzae*
(C) *Bacillus subtilis*
(D) *Mycobacterium tuberculosis*

51. Mendel's experimental organism was

(A) *Caenorhabditis elegans*
(B) *Neurospora crassa*
(C) *Drosophila melanogaster*
(D) *Pisum sativum*

52. The site of action of Chloramphenicol is

(A) 30S ribosome
(B) 50S ribosome
(C) Nucleic acid
(D) Cell wall

53. Enzyme used for fruit juice clarification

(A) Amylase
(B) Protease
(C) Pectinase
(D) Lipase

54. Calcium is not directly involved in

(A) Blood clotting
(B) Cell signaling
(C) Muscle contraction
(D) Electron transport chain

55. Which one of the following organisms is used for the large scale production of recombinant insulin?

(A) *P.pastoris*
(B) *A.tumefaciens*
(C) *B.subtilis*
(D) *E.coli*

56. A strain of micro-organism which lacks the ability to synthesize one or more growth factors

(A) Autotrophs
(B) Heterotrophs
(C) Lithotrophs
(D) Auxotroph

57. Which of the following is a DNA virus?

(A) Adeno virus
(B) Picorna virus
(C) Myxovirus
(D) Corona virus

58. Immunodiffusion in gel is a type of

(A) Precipitation reaction
(B) Agglutination reaction
(C) Complement fixation reaction
(D) None of the above

59. Which of the following is not a part of downstream processing?

(A) Filtration
(B) Centrifugation
(C) Drying
(D) Secondary screening

60. An example for an anaerobic fermentation

(A) Citric acid production
(B) Amino acid production
(C) Acetone butanol fermentation
(D) Amylase production

61. Which among the following is a Type II restriction endonuclease?

(A) *EcoP1*
(B) *EcoR*1
(C) *Eco*B
(D) *Eco*K

62. Lamarck theory of organic evolution is usually known as

(A) Natural selection
(B) Inheritance of Acquired characters
(C) Genetic drift
(D) Continuity of germ plasm

63. A segment of DNA that reads the same forward and backward is called

(A) Palindromic DNA
(B) Complementary DNA
(C) Tandem DNA
(D) Microsatellite DNA

64. In a plant red colour (R) is dominant over white (r). A cross was made between a red flowered plant and a white flowered plant. The offspring were 50% red and 50 % white. What is the possible genotype of the red colored plant?

(A) RR
(B) Rr
(C) rr
(D) None of the above

65. In H1N1, H and N represent

(A) Hemolysin and Neuraminase
(B) Hemagglutinin and Neuraminase
(C) Hemolysin and Neuraminidase
(D) Hemagglutinin and Neuraminidase

66. BCG is an example for

(A) Live attenuated vaccine
(B) Killed vaccine
(C) Recombinant vaccine
(D) Subunit vaccine

67. Antibiotic sensitivity of a clinical isolate is tested by the

(A) Thayer-Martin method
(B) Kirby-Bauer method
(C) ONPG test
(D) Vogues-Proskauer test

68. Width of DNA double helix is

(A) 34A°
(B) 20A°
(C) 10A°
(D) 3.4A°

69. 3' Terminal end of m-RNA has a polymer of adenylate which is known as

(A) Capping
(B) Polyadenylate
(C) Poly (A) tail
(D) None of the above

70. Tm is greater for DNA with

(A) Higher GC content
(B) Higher GA content
(C) Higher AT content
(D) Higher AC content

71. The causative agent of Bubonic plague

(A) *Pasturella multocida*
(B) *Yersinia pestis*
(C) *Yersinia enterocolitica*
(D) *Yersinia pseudotuberculosis*

72. The etiological agent of common conjunctivitis/ pink eye

(A) *Pseudomonas aeruginosa*
(B) *Klebsella pneumoniae*
(C) *Haemophilus aegyptius*
(D) *Staphylococcus aureus*

73. The ability to reveal closely adjacent points as separate and distinct

(A) Magnification
(B) Resolution
(C) Numerical aperture
(D) None of the above

74. The site where RNA polymerase attaches to the DNA molecule to start the formation of RNA is called

(A) Promoter
(B) Exon
(C) Intron
(D) GC hairpin

75. Which of the following vectors can carry the largest insert?

(A) Plasmids
(B) Phagemids
(C) YACs
(D) Cosmids

76. Ultraviolet radiation causes

(A) Protein denaturation
(B) Rupturing of cell membrane
(C) Dimerization of Thymine
(D) Frameshift mutation

77. In which format are sequences submitted in BLAST server?

(A) FASTA
(B) ASN.1
(C) MmCIF
(D) PDB file format

78. Transposons are discovered by

(A) F. Griffith & Co.
(B) Watson and Crick
(C) B.MacClintok
(D) F. Meicher

79. In a cell cycle DNA replication occurs at ---- ---------phase

(A) S
(B) G1
(C) G2
(D) G0

80. The most effective way to analyze variation at the whole genome level is to use

(A) Single nucleotide polymorphism (SNP)
(B) Structural DNA
(C) Segmental duplication
(D) Site directed mutagenesis

81. Which of the following is a gaseous sterilizing agent?

(A) Ethanol
(B) Formaldehyde
(C) Glutardehyde
(D) Ethylene oxide

82. Match the following:

	Organism		General Name
I.	Hyalonema	-	(A) Freshwater sponge
II.	Euplectella	-	(B) Boring sponge
III.	Cliona	-	(C) Glass rope sponge
IV.	Spongilla	-	(D) Venus flower basket

(A) I-D, II-C, III-B, IV-A
(B) I-B, II-D, III-A, IV-C
(C) I-C, II-D, III-B, IV-A
(D) I-D, II-A, III-D, IV-C

83. Choose the correct order:

(A) Sporocyst, Miracidium, Redia, Metacercaria, Cercaria
(B) Miracidium, Redia, Sporocyst, Metacercaria, Cercaria
(C) Miracidium, Sporocyst, Redia, Cercaria, Metacercaria
(D) Cercaria, Metacercaria, Miracidium, Sporocyst, Redia

84. **Assertion (A)** : In *Taenia solium*, energy is liberated by breaking glycogen into CO_2 and fatty acids.

Reason (R) : Aerobic respiration occurs in *Taenia solium*.

(A) Both A and R are correct and R is the correct explanation for A
(B) A is correct but R is incorrect
(C) A is incorrect but R is correct
(D) Both A and R are incorrect and R is not the correct explanation for A

85. Which of the following is viviparous?

(A) *Ascaris*
(B) *Trichinella*
(C) *Enterobius*
(D) *Ancyclostoma*

86. I am an air-breathing arthropod with thin cuticle, a single pair of antennae, a single pair of jaws and numerous pairs of hollow stumpy legs. Who am I?

(A) Centipede
(B) Millipede
(C) Spider
(D) Peripattus

87. Match the following

	Organ part		Parts formed
I.	Cornegeal layer	-	(A) Rods and cones
II.	Vitrellae	-	(B) Corneal lens
III.	Retinula	-	(C) Refractive rod
IV.	Rhabdome	-	(D) Crystalline cone

(A) I-D, II-C, III-B, IV-A
(B) I-B, II-D, III-A, IV-C
(C) I-C, II-A, III-D, IV-B
(D) I-D, II-C, III-D, IV-A

88. Say True or False:

(A) In cockroach, the ommatidium produces small pieces of images called 'mosaic image'.

(B) In bright light the ommatidium forms 'apposition image' and in dim light it forms 'superposition image'.

(A) Both A and B are True
(B) A is True and B is False
(C) A is False and B is True
(D) Both A and B are False

89. *Ampullae of Lorenzini* helps in_____.

(A) Olfactory function
(B) Equilibrium and auditory function
(C) Detection of slow vibrations in water
(D) Detection of water temperature

90. The dental formula of rabbit is

(A) I = 2/2, C = 1/1, Pm = 2/2, M = 3/3
(B) I = 2/3, C = 0/1, Pm = 3/3, M = 3/3
(C) I = 2/1, C = 0/0, Pm = 3/2, M = 3/2

(D) I = 1/1, C = 0/0, Pm = 0/0, M = 3/3

91. The embedding medium not used for embedding tissues for electron microscopy is

(A) Paraffin
(B) Vestoplaw
(C) Araldite
(D) Maraglas

92. The Bedouin women have smooth endoplasmic reticulum problem, because they are not able to make enough of this vitamin.

(A) Vitamin B
(B) Vitamin D
(C) Vitamin E
(D) Vitamin K

93. 'Pompe's Disease', an inborn disease is caused by the malfunctioning of

(A) ER
(B) Ribosomes
(C) Lysosomes
(D) Golgi complex

94. The microtubule is made up of _____ number of protein protofilaments called tubulin.

(A) 11
(B) 13
(C) 15
(D) 17

95. Calcium dependent cell adhesion is mediated by this glycoprotein.

(A) Integrins
(B) Selectins
(C) Glycines
(D) Cadherins

96. This gene is called as 'The Guardian of the Genome'.

(A) Rb
(B) p53
(C) PTEN
(D) APC

97. In *Mirablilis jalapa* the F2 generation has same phenotype and genotype ratios, which shows

(A) Complete dominance
(B) Codominance
(C) Incomplete dominance
(D) Pleiotrophism

98. According to Lyon hypothesis, the number of Barr bodies was always

(A) nX-1
(B) nX+1
(C) nX-2
(D) nX+2

99. (A) In the blind spot, both rods and cones are present.

(R) Image formation does not take place at blind spot.

(A) Both A and R is correct
(B) A is correct, but R is not correct
(C) A is not correct, but R is correct
(D) Both A and R is not correct

100. Which hormone stops the acid secretion of the gastric gland?

(A) Gastrin
(B) Secretin
(C) Enterocrinin
(D) Entero-gastrone

101. The inward rolling of cells through the dorsal lip during gastrulation of frog is called

(A) Involution
(B) Invagination
(C) Epiboly
(D) Delamination

102. The budding of a new and very different daughter species from a semi-isolated peripheral population of the ancestral species in a cross fertilizing organism is called as

(A) Instantaneous speciation
(B) Gradual speciation
(C) Quantum speciation
(D) Sympatric speciation

103. An algae rich in proteins is

(A) Chlorella
(B) Oscillatoria
(C) Ulothrix
(D) Spirogyra

104. The loading of phloem during translocation means

(A) elongation of phloem cells
(B) separation of phloem parenchyma
(C) strengthening of phloem fibers
(D) pouring of sugars into phloem

105. First stable product of photosynthesis by C_3 plants during dark reaction is

(A) PGA
(B) Pyruvic acid
(C) RuBP
(D) Oxalo acetic acid

106. Phytohormone causing abscission of leaves, senescence, bud dormancy and inhibition of cell division is

(A) IAA
(B) ethylene
(C) cytokinins
(D) ABA

107. Main function of lenticels is

(A) transpiration
(B) guttation
(C) bleeding
(D) gaseous exchange

108. Pomato is somatic hybrid between

(A) poppy and potato
(B) potato and tomato
(C) poppy and tamarind
(D) poppy and tomato

109. Which of the following is used to determine the rate of transpiration in plants?

(A) Porometer/hygrometer
(B) Potometers
(C) Auxanometer
(D) Tensiometer/barometer

110. During the dark reactions of photosynthesis

(A) Water splits
(B) CO_2 is reduced to organic compounds
(C) Chlorophyll is activated
(D) C6-Sugar is broken into three carbon sugars

111. Which of the following is the most primitive vascular plant?

(A) ferns
(B) cycas
(C) sphagnum
(D) psilotum

112. Which division of fungi lack flagella?

(A) Mastigomycota
(B) Amastgomycota
(C) Gymnomycota
(D) Basidiomycetes

113. Fruiting bodies of slime moulds are called

(A) acervulus
(B) sori
(C) apothecium
(D) perithecium

114. Cork cambium and vascular cambium are

(A) parts of secondary xylem and phloem
(B) parts of percycle
(C) lateral meristem
(D) apical meristem

115. A bicollateral vascular bundle is characterized by

(A) phloem being sandwiched between xylem
(B) transverse splitting of vascular bundle
(C) longitudinal splitting of vascular bundle
(D) xylem being sandwiched between phloem

116. What will be left if chlorophyll is burnt?

(A) Magnesium
(B) Manganese
(C) Iron
(D) Sulphur

117. Elements needed for chlorophyll formation in plants are

(A) Sodium and copper
(B) Calcium and potassium
(C) Iron and magnesium
(D) Iron and calcium

118. What is meant by 'Organ culture'?

(A) Maintenance alive of a whole organ, after removal from the organism by partial immersion in a nutrient fluid
(B) Introduction of a new organ in an animal body with a view to create genetic mutation in the progenies of that animal
(C) Cultivation of organs in a laboratory through the synthesis of tissues
(D) The aspects of culture in community which are mainly dedicated by the need of a specified organ of the human body

119. In addition to seeds, which of the following characteristics are unique to the seed-producing plants?

(A) sporopollenin
(B) lignin present in cell walls
(C) pollen
(D) megaphylls

120. White rust of crucifer is caused by

(A) *Puccinia*
(B) *Ustilago*
(C) *Cystopus*
(D) *Peziza*

121. When F_1 plants heterozygous for tallness are selfed, F_2 generation has both tall and dwarf plants. This depicts the principle of

(A) Dwarfness
(B) Law of segregation
(C) Law of independent assortment
(D) Blended inheritance

122. If the trait is X-linked recessive, which of the following statements is true?

(A) Children will not have the trait
(B) Children might or might not have the trait
(C) All of the children will have the trait
(D) Males will have the trait, but females will only have the trait if their father also has the trait

123. Polyribosomes are aggregates of

(A) ribosomes and r-RNA
(B) only r-RNA
(C) peroxisomes
(D) several ribosomes held together by string of m-RNA

124. In ✔-helix secondary structure, hydrogen bonds lie between amide group of one amino acid and carbonyl group of

(A) 2nd amino acid
(B) 3rd amino acid
(C) fourth amino acid
(D) fifth amino acid

125. Nucleotide arrangement in DNA can be seen by

(A) X-ray crystallography
(B) Electron microscopy
(C) Confocal microscopy
(D) Light microscopy

126. Initiation condon of protein synthesis (in eukaryotes) is

(A) GUA
(B) GCA
(C) CCA
(D) AUG

127. If the DNA condons are ATG ATG ATG and a cytosine base is inserted at the beginning, then which of the following will result

(A) CAT GAT GAT G
(B) a non-sense mutation
(C) C ATG ATG ATG
(D) CATGATGATG

128. The ' subunit of polymerase has a function of

(A) Promoter binding
(B) Elongation
(C) Cation binding
(D) Termination

129. Northern blotting is performed for

(A) Determining the size of DNA
(B) Determining the size of RNA
(C) Quantification of RNA
(D) Sequencing of RNA

130. What is the function of polynucleotide kinase?

(A) Addition of [redacted] - phosphate at 3' – OH
(B) Addition of [redacted] - phosphate at 5' – OH
(C) Removal of [redacted] - phosphate at 3' – OH
(D) Removal of [redacted] - phosphate at 5' – OH

131. At how many places reduced coenzymes are produced in TCA cycle?

(A) Two
(B) Three
(C) Four
(D) Five

132. What is the byproduct of bacterial photosynthesis?

(A) O_2
(B) H_2O
(C) [illegible]
(D) H_2S

133. During electrophoresis denaturation of the double stranded DNA is brought about by

(A) Treatment with alkali
(B) Application of current
(C) Treatment with EtBr
(D) Application of heat

134. The inheritance pattern of RAPD is

(A) Dominant
(B) Recessive
(C) Codominant
(D) Random

135. After entering a T cell, HIV first forms

(A) mRNA
(B) ssDNA
(C) dsDNA
(D) dsRNA

136. Which of the following compounds is responsible for coordinated regulation of glucose and glycogen metabolism?

(A) NAD^+
(B) Fructose 2, 6 bisphosphate
(C) Acetyl-CoA
(D) Fructose 1, 6 bisphosphate

137. An amino acid that has a secondary amine and disrupts ✔ helix formation is

(A) Glycine
(B) Phenylalanine
(C) Serine
(D) Proline

138. Pyramid of numbers deals with the number of

(A) Species in an area
(B) Sub species in a community
(C) Individuals in a community
(D) Individuals in a tropical level

139. Food chain in which micro-organisms breakdown the food formed by primary producers

(A) Parasitic food chain
(B) Consumer food chain
(C) Detritus food chain
(D) Predator food chain

140. Which national park is not present in Assam?

(A) Kaziranga
(B) Nameri
(C) Namdhapa
(D) Dibru-Saikhawa

141. Which of the following is not a primary contributor to the greenhouse effect?

(A) carbon dioxide
(B) carbon monoxide
(C) chlorofluorocarbons
(D) methane gas

142. The following disease is caused by nonsense mutation

(A) Beta thalassemia
(B) Autism
(C) Albinism
(D) Marfan syndrome

143. The reversion of the phenotypic effects of an already existing mutation is by

(A) Point mutation
(B) Somatic mutation
(C) Germline mutation
(D) Suppressor mutation

144. In ABO blood type, Type AB is produced by

(A) Homozygous genotype
(B) Homozygous and Heterozygous genotype
(C) Heterozygous genotype
(D) None of the above

145. In mutational event, when adenine is replaced by guanine, it is a case of

(A) Transition
(B) Frameshift mutation
(C) Transcription
(D) Transversion

146. Citric acid is a useful component of a buffer mixture because

(A) it has one pK_a value
(B) it has two pK_a values
(C) it has four pK_a values
(D) it has three pK_a values

147. Which of the vector was mostly used in Human Genome project

(A) Lamda phage and M13 vectors
(B) Phagemid and shuttle vectors
(C) Plasmid and Cosmid
(D) BAC and YAC

148. Which of the following amino acids have an abundance of Histones?

(A) Arginine and Glutamine
(B) Alanine and Glutamine
(C) Glycine and Glutamine
(D) Lysine and Arginine

149. In Lineweaver Burk plot, the Y-intercept represents

(A) Vmax
(B) Km
(C) 1/Vmax
(D) 1/Km

150. Viable material of endangered species can be preserved by

(A) Gene Bank
(B) Gene Library
(C) Gene Pool
(D) Herbarium

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MICROBIOLOGY - ANSWER KEY

TEST CODE: 623

QN. NO.	KEY	QN. NO.	KEY	QN. NO.	KEY	QN. NO.	KEY	QN. NO.	KEY
1	A	26	B	51	D	76	C	101	A
2	D	27	B	52	B	77	A	102	C
3	A	28	C	53	C	78	C	103	A
4	D	29	C	54	D	79	A	104	D
5	C	30	B	55	D	80	A	105	A
6	B	31	C	56	D	81	D	106	D
7	C	32	B	57	A	82	C	107	D
8	C	33	D	58	A	83	C	108	B
9	B	34	B	59	D	84	B	109	B
10	C	35	C	60	C	85	B	110	B
11	D	36	A	61	B	86	D	111	D
12	B	37	C	62	B	87	B	112	A
13	D	38	D	63	A	88	A	113	B
14	B	39	A	64	B	89	D	114	C
15	C	40	D	65	D	90	C	115	D
16	D	41	A	66	A	91	A	116	A
17	C	42	A	67	B	92	B	117	C
18	A	43	B	68	B	93	C	118	A
19	A	44	B	69	C	94	B	119	C
20	A	45	D	70	A	95	D	120	B
21	B	46	B	71	B	96	B	121	B
22	A	47	C	72	C	97	C	122	D
23	C	48	C	73	B	98	A	123	D
24	C	49	A	74	A	99	C	124	C
25	C	50	B	75	C	100	D	125	A

QN. NO.	KEY
126	D
127	A
128	C
129	C
130	B
131	B
132	C
133	A
134	A
135	C
136	D
137	C
138	D
139	D
140	C
141	B
142	A
143	D
144	C
145	A
146	D
147	D
148	D
149	C
150	A