CHEMISTRY >> Chemical Bonding

1. The formation of coordination complex compounds formed by transition metals is explained by:
   - A. Ligand field theory
   - B. crystal field theory
   - C. molecular orbital theory
   - D. both A & B

HEMISTRY >> Alcohol and Phenols

2. Methanol is also called as
   - A. liquor
   - B. grain alcohol
   - C. wood spirit
   - D. fuel

CHEMISTRY >> Chemistry of Hydrocarbons

3. How many products of mono-substituted benzene are possible?
   - A. Two
   - B. One
   - C. Three
   - D. None of these

CHEMISTRY >> Transition Elements

4. During bond formation d orbitals splits into _____of orbitals ?
   - A. 3 sets
   - B. 4 sets
   - C. 5 sets
   - D. 2 sets

CHEMISTRY >> Chemical Equilibrium

5. Manufacturing of Ammonia by Haber's process is an
   - A. endothermic reaction
   - B. exothermic reaction
   - C. irreversible
   - D. Slow

CHEMISTRY >> Reaction Kinetics

6. In the rate equation R=k[A]^a [B]^b, a and b as exponents decides
   - A. Direction of reaction
   - B. Extent of Reaction
   - C. Order of Reaction
   - D. Temperature of Reaction

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

7. Exothermic Reactions heat is
   - A. Taken in
   - B. Give out to surroundings
   - C. Neither given nor lost
   - D. None of these

CHEMISTRY >> S and P Block elements

8. Which one is natron?
   - A. Na2CO3
   - B. Na2CO3.1 H2O
   - C. Na2CO3.H2O
   - D. NaHCO3

CHEMISTRY >> Carboxylic Acids

9. Which of the following method is used to prepare acetic acid ?
   - A. Distillation
   - B. Fermentation
   - C. Dehydration
   - D. Ozonolysis

CHEMISTRY >> Macromolecules

10. After digestion proteins change into:
   - A. Amino acids
   - B. Starch
   - C. Glycogen
   - D. Lipids

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

11. The total energy of products in a chemical reaction is:
   - A. equal to reactants
   - B. More than reactants
   - C. always zero
   - D. Less Than Reactants

CHEMISTRY >> S and P Block elements

12. Which one can form complex?
   - A. Na
   - B. Cr
   - C. Li
   - D. K

CHEMISTRY >> Gases

13. On earth, plasma occurs in few limited places like
   - A . auroras'
   - B. flames
   - C. bolts
   - D. all of these

CHEMISTRY >> Alkyl Halides

14. Alkyl halide react with Sodium lead alloy, which of the following is correct formula of tetramethyl lead?
   - A. $(C_2H_5)_4Pb$
   - B. $(CH_3)_4Pb$
   - C. $(CH_4)_4Pb$
   - D. $(CH_3)_4Pd$

CHEMISTRY >> Carboxylic Acids

15. Carboxylic acid reduction to alcohol can be achieved by using?
   - A. $H_2/Ni$
   - B. Pd/C
   - C. $NaBH_4$
   - D. $LiAlH_4$

CHEMISTRY >> Carboxylic Acids

16. Which of the following can not be prepared directly from acetic acid ?
   - A. Ethyl acetate
   - B. Acetamide
   - C. Acetyl Halide
   - D. Acetic anhydride

CHEMISTRY >> Reaction Kinetics

17. The half-life of Uranium is:

A. 700 Million years
B. 706 Million years
C. 89 days
D. 710 million year

CHEMISTRY >> Fundamental Principles of Organic Chemistry

18. Which of the following compound is an amide?

A. $NH_4CNO$
B. $NH_2COCH_3$
C. $NH_2CONH_2$
D. $NH_2COONH_2$

CHEMISTRY >> Alcohol and Phenols

19. Phenol gives electrophilic substitution reactions due to?

A. OH group
B. Phenoxide ion
C. Benzene ring
D. All of these

CHEMISTRY >> Solids

20. Boiling Points of Polar Molecular solids are:

A. Low
B. Moderate
C. High
D. Cannot be predicted

CHEMISTRY. >> Introduction to Fundamental Concepts of Chemistry

21. If number of molecules of different gases are same at S.T.P ,the occupied volume will be

A. greater
B. same
C. smaller
D. twice

CHEMISTRY >> Atomic Structure

22. The value of Principal quantum number "n" represent:

A. energy of electron
B. location of electron
C. shells or energy levels
D. all of these

CHEMISTRY >> Aldehydes and ketones

23. Carbonyl system having no alpha hydrogen undergoes _____?

A. Aldol condensation
B. Cannizzaro reaction
C. Haloform reaction
D. Oxidation reaction

CHEMISTRY >> Electrochemistry

24. In oxidation number method the final step to balance equation is

A. Hit and Trial Method
B. Inspection method
C. Identifying the reducing participants
D. Identifying the oxidized participants

CHEMISTRY >> Electrochemistry

25. Oxidation Number of all the elements in free state is:

A. unity
B. Positive
C. Zero
D. Negative

CHEMISTRY >> Alkyl Halides

26. Which of the following is an example of Nucleophile?

A. $Br^+$
B. $CH_3^+$
C. $NH_3$
D. $CH_4$

CHEMISTRY >> Liquids

27. Water is considered as a Universal solvent because of which properties?

A. Polar nature of water
B. H-bonding
C. Electronegativity difference
D. All are correct

CHEMISTRY >> Chemical Equilibrium

28. By increasing the concentration of substance on reactant side shifts the equilibrium to

A. Backward direction
B. Forward Direction
C. higher concentration
D. None of these

CHEMISTRY >> Chemical Bonding

29. The ionic radius is always _____than the atomic radius from which t is derived.

A. higher
B. larger
C. moderate
D. smaller

CHEMISTRY >> Macromolecules

30. On which of the following factors rate of enzyme action is directly proportional ?

A. Concentration of products
B. Time
C. Concentration of substrate
D. Concentration of solvent

CHEMISTRY >> Chemistry of Hydrocarbons

31. Which of the following reaction can be used to prepare Symmetrical alkanes?

A. Reduction reaction
B. Kolb's reaction
C. Clemmensen Reaction
D. Hydrogenolysis

CHEMISTRY >> Liquids

32. Melting and boiling point of liquids depend upon ____-?

A. Motion of liquid molecules
B. Intermolecular forces between the molecules
C. Kinetic energy of the molecules
D. Mass of the molecules

CHEMISTRY >> Fundamental Principles of Organic Chemistry

33. What is the octane number of Iso-octane?

A. 40
B. 100
C. 0
D. 2

CHEMISTRY >> Macromolecules

34. Who introduce the concept of macromolecules?

A. Runge
B. MaxWell
C. Staudinger
D. None of these

CHEMISTRY >> Solids

35. CuSO4.5H2O is an example of crystal system:

A. triclinic
B. tetragonal
C. cubic
D. rhombohedral

CHEMISTRY >> Chemical Bonding

36. The elements with intermediate value of ionization energy value are called

A. metals
B. non metals
C. metalloid
D. transition elements

CHEMISTRY >> Transition Elements

37. When we dissolve a compound of transition element in a solution of salt then it will form

A. Simples ions
B. Strong anions
C. Double salts
D. Complex ions

CHEMISTRY >> Macromolecules

38. Which of the following causes the inactivation of enzymes _____?

A. Concentration of substrate
B. Optimum temperature
C. Beta radiation
D. Optimum pH

CHEMISTRY >> Alcohol and Phenols

39. What is optimum temperature for the process of fermentation?

A. 10-15 degrees
B. 25-30 degrees
C. 25-35 degrees
D. 25-40 degrees

CHEMISTRY. >> Carboxylic Acids

40. Which of the following causes complete reduction of carboxylic acid into alkanes?

A. $H_2$/Ni
B. Pd/C
C. HI/P
D. $LiAlH_4$

CHEMISTRY >> Fundamental Principles of Organic Chemistry

41. Conversion of straight chain hydrocarbons into branched chain is called as_____?

A. Reforming
B. Cracking
C. Isomers
D. Decomposition

CHEMISTRY >> Solids

42. An example of non- polar molecular crystal is:

A. Ice
B. Iodine
C. Sugar
D. Salt

CHEMISTRY >> Gases

43. The molecule of water has structure:

A. cubic
B. tetrahedral
C. trigonal
D. hexagonal system

CHEMISTRY >> Aldehydes and ketones

44. Formaldehyde polymerizes to form ?

A. Bakelite
B. Paraldehyde
C. Metaformaldehyde
D. All of these

CHEMISTRY >> Alkyl Halides

45. Which one of the following is the correct IUPAC name of 2-Chloro,3-methylpentane ?

A. $CH_3$-$CH_2$-CH(Cl)-$CH(CH_3)$
B. $CH_3$-$CH_2$-$CH(CH_3)$-CH(Cl)-$CH_3$
C. $CH_3$-$CH_2$-CH(Cl)-CH(Cl)-$CH_3$
D. $CH_3$-$CH_2$-CH(Cl)-$CH(CH_3)$-$CH_3$

CHEMISTRY >> Alcohol and Phenols

46. The catalyst used for ether formation by dehydration of alcohols:

A. Cons HN3 at 14 C
B. Cons H2SO4 at 14 C
C. Hot H3PO4 at 18 C
D. ZnCl2 at 45 C

CHEMISTRY >> Electrochemistry

47. In Electrochemical Cell Positive Ions are migrated towards:

A. Anode
B. Cathode
C . Toward the bottom of the cell
D. Towards the walls of the cell

CHEMISTRY >> Chemical Equilibrium

48. At equilibrium if the concentration of product is increased reaction will proceed to:

A . Forward Direction
B. Backward Direction
C. Remain Undisturbed
D. None of these

CHEMISTRY >> Transition Elements

49. The transition elements belongs to Group VIB are:

A. Zn ,Cd, Hg
B. Fe, Ru, Os
C. Mn, Te, Re
D. Cr, Mo, W

CHEMISTRY >> Liquids

50. Ethane and hexane both are nonpolar molecules, but ethane has lower Boiling point than Hexane due to?

A. Strong london forces in ethane due to smaller size
B. Weak london forces in hexane due to larger size
C. Strong london forces in hexane due to smaller size
D . Strong london forces in hexane due to larger size

CHEMISTRY >> Gases

51. Values of Van der Waalâ€™s constant 'b' in correct order is:

A. CO2<SO2<O2<H2
B. CO2>SO2>O2>H2
C. O2<H2<CO2<SO2
D. O2>H2>CO2>SO2

CHEMISTRY >> Carboxylic Acids

52. Which of the following does not contain COOH group?

A. Acetone
B. Propanoic acid
C. Formic acid
D. Picric acid

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

53. Due to the formation of protective layer of oxides at Aluminum oxide surface, it is hard to burn it:

A. completely in air
B. completely in oxygen
C. with carbon
D. with nitrogen

CHEMISTRY >> Macromolecules

54. Enzymes speed up the reaction upto:

A. $10^{10}$
B. $20^{10}$
C. $10^{20}$
D. $15^{10}$

CHEMISTRY >> Reaction Kinetics

55. In one second if the concentration changes from 0.1 to 0.25 then the rate will be:

A. 0.02 Moles/dm3s-1
B. 0.03 Moles/dm3s-1
C. 0.15 Moles/dm3s-1
D. 0.11Moles/dm3s-1

CHEMISTRY >> Reaction Kinetics

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C. 0.15 Moles/dm3s-1
D. 0.11Moles/dm3s-1

CHEMISTRY >> Aldehydes and ketones

56. Self-oxidation reduction reaction is also called as_____?

A. Dehydration
B. Condensation reaction
C. Disproportionation reaction
D. Proportionation reaction

BIOLOGY >> Life processes in animals and plants (Nutrition/Gaseous exchange/Transport)

57. What is the main cause of lung cancer?

A. Smoking
B. Cough
C. Pollutants
D. Mutagens

BIOLOGY >> Cell Structure and Function

58. Which of the following statement is incorrect about Glyoxysomes?

A. They contain enzymes which help in conversion of fatty acids into carbohydrate
B. They are abundant in soybeans but absent in pea.
C. They are single membranous organelles
D. They are present throughout life of a plant and provide them with energy through Glyoxylate cycle.

BIOLOGY >> Evolution

59. Population growth is checked by which of the following?

A. no competition
B. no polymorphism
C. polymorphism
D. competition

BIOLOGY >> Biological Molecules Enzymes

60. The branch of biology which deals with the study of chemical compounds and the chemical processes in the fliving organisms is called?

A. Chemistry
B. Biochemistry
C. Molecular Biology
D. Both a and b

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

61. A neural pathway that controls an action reflex is called:

A. Nerve cell
B. reflex arc
C. Receptor cells
D. Mixed nerve

BIOLOGY >> Evolution

62. Adaptation of traits to better fill a niche is known as which of the following?

A. polymorphism
B. gene linkage
C. specialization
D. replication

BIOLOGY >> Diversity among Animals

63. In some cases the blastomere can produce complete embryo the cleavage will be?

A. Spir l and determinate
B. Spiral and indeterminate
C. Radial and determinate
D. Radial and indeterminate

BIOLOGY >>. Bio-Energetics

64. The Light reaction takes place in?

A. Chloroplast
B. Grana
C. Thylakoid
D. Stroma

BIOLOGY >> Life processes in animals and plants (Nutrition/Gaseous exchange/Transport)

65. The pleural membranes cover which organ?

A. Kidney
B. Heart
C. Brain
D. Lungs

BIOLOGY >> Bio-Energetics

66. The dense fluid filled region in the chloroplast is?

A. Grana
B. stroma
C. Thylakoid
D. Intergrana

BIOLOGY >> Biodiversity (Acellular Life/Variety of Life)

67. What does the size of viruses' range between?

A. 100 mm to 150 mm
B. 20 nm to 250 nm
C. 300 nm to 3000 nm
D. 3 nm to 30 nm

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

68. The area on the left hemisphere related to speech is called?

A. Amygdala
B. Broca's area
C. hypothalamus
D. occipital lobe

BIOLOGY >> Cell Structure and Function

69. Proteins and lipids are converted into glycolipids and glycoproteins by adding carbohydrates by?

A. ribosomes
B. cytoplasm
C. golgi apparatus
D. endoplasmic reticulum

BIOLOGY >> Enzymes

70. The non substrate molecules that binds to the allosteric sites are called?

A. inhibitors
B. reactants
C. allosteric substrates
D. allosteric modulators

BIOLOGY >> Biodiversity (Acellular Life/Variety of Life)

71. When were bacteriophages discovered by Twort?

A. 1915
B. 1920
C. 1910
D . 1820

BIOLOGY >> Diversity among Animals

72. Of the following which one is not included in Protostomes?

A. arthropods
B. hemichordates
C. annelids
D. mollusks

BIOLOGY >> Support and Movement

73. Diameter of thick filament is approximately how many nm?

A. 15
B. 16
C. 17
D. 18

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

74. Reflex action is a type of:

A. Voluntary action
B. Involuntary action
C. Saltatory conduction
D. None of these

BIOLOGY >> Diversity among Animals

75. Closed circulatory system is present in which group of invertebrates?

A. Arthropods
B. Gastopods
C. Aves
D. Annelids

BIOLOGY >> Prokaryotes

76. Which of the following is true of both bacterial conjugation and meiosis?

A. Both processes produce four haploid cells
B. Both processes are a form of asexual reproduction
C. Both processes involve genetic recombination
D. none of these

BIOLOGY >> Variation and Genetics / Inheritance

77. Which term means "same alleles"?

A. Heterozygous
B. Hybrid
C. Homozygous
D. None of them

BIOLOGY >> Diversity among Animals

78. Which is the largest cell in the human body?

A. macrophage
B. ovum
C. granule cell
D. none of these

BIOLOGY >> Biodiversity (Acellular Life/Variety of Life)

79. In what year did WHO declare that smallpox was completely eradicated?

A. 1990
B. 1980
C. 2001
D. 1995

BIOLOGY >> Enzymes

80. Transmethylases helps in transfer of which of the following?

A. methyl group
B. ethyl group
C. amino group
D. acetyl group

BIOLOGY >> Variation and Genetics / Inheritance

81. The number of linkage groups in humans is?

A. 1/21
B. 23
C. 1/23
D. 1/24

BIOLOGY >> Support and Movement

82. The bicep and tricep muscles are located in:

A. shank
B. upper arm
C. shoulder
D. lower jaw

BIOLOGY >> Life processes in animals and plants (Nutrition/Gaseous exchange/Transport)

83. The glycine generated during photorespiration enters:

A. Glyoxysomes
B. Mitochondria
C. Peroxisomes
D . Ribosomes

BIOLOGY >> Evolution

84. If all members of a population are homozygous for the same allele, that allele is said to be?

A. Mobile in gene pool
B. Random in gene pool
C. Stationary in gene pool
D. Fixed in gene pool

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

85. In myelinated neurons the impulse jumps from node to node, what is this transmission called?

A. myelinated impulse
B. jumping impulse
C. saltatory impulse
D. all of these

BIOLOGY >> Bio-Energetics

86. Chlorophyll b is found in which organisms?

A. Green plants
B. green algae
C. Animals
D. both a and b

BIOLOGY >>. Prokaryotes

87. Which of the following is the best description of a bacteriophage?

A. fungus
B. prokaryote
C. living organism
D. obligate intracellular parasite

BIOLOGY >> Biological Molecules Enzymes

88. Cells release various cellular secretions to facilitate bodily functions. Most of the cellular secretions are?

A. Glycoproteins
B. glycolipids
C. Nucleohistones
D. Carbohydrates

BIOLOGY >> Reproduction

89. Human testes are packed with how many seminiferous tubules?

A. 200
B. 300
C. 500
D. 600

BIOLOGY >> Biodiversity (Acellular Life/Variety of Life)

90. What is the shape of the TMV Virus?

A. rod
B. spherical
C. tadpole
D. helical

BIOLOGY >> Life processes in animals and plants (Nutrition/Gaseous exchange/Transport)

91. How many compounds of tar of tobacco smoke are included in causing cancer?

A. 2
B. 5
C. 8
D. More than 10

BIOLOGY >> Reproduction

92. External genitalia of human male consist of a pair of testes which lie outside the body in the sac like?

A. bag
B. scrotum
C. pouch
D. all of these

BIOLOGY >> Biological Molecules Enzymes

93. This is non-reducing sugar

A. maltose
B. lactose
C. cellobiose
D. sucrose

BIOLOGY >> Bio-Energetics

94. Final acceptor of electrons in respiratory chain is?

A. NADH
B. Cytochrome a3
C. water
D. oxygen

BIOLOGY >> Biodiversity (Acellular Life/Variety of Life)

95. The phage that causes the lytic cycle is called?

A. virulent phage
B. lytic phage
C. temperate phage
D. both a and b

BIOLOGY >> Evolution

96. In a certain species of feline, all males are much larger than females. Members of either sex that are of intermediate size struggle to find mates. What principle best describes this phenomenon?
    A. Bottleneck affect
    B. Directional selection
    C. Genetic drift
    D. Disruptive selection

BIOLOGY >> Support and Movement

97. What is the role of the sarcoplasmic reticulum prior to a muscle contraction?
    A. It actively pumps calcium ions into its lumen
    B. It releases calcium ions by active transport
    C. It creates the proteins needed to cover the actin filaments
    D. It releases calcium once an actin potential reaches the sarcolemma

BIOLOGY >> Variation and Genetics / Inheritance

98. Which of the following is true about O-negative blood group?
    A. A,B antigen present
    B. Rh antigen present
    C. Rh antibody present
    D. Anti-A, Anti-B antibody present

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

99. Which part of the nervous is responsible for controlling reflex action?
    A. Corpus callosum
    B. Pons
    C. vermis
    D. spinal cord

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

100. The spinal cord is continuous with which part of the brain?
    A. cerebrum
    B. cerebellum
    C. medulla oblongata
    D. pons

BIOLOGY >> Bio-Energetics

101. Find out the correct sequence for movement of electrons during the light-dependent reaction:
    A. p68 , p7 , water, NADP
    B. water, p7 , NADP, p68
    C. p7 , p68 , NADP, water
    D. water, p68 , p7 , NADP

BIOLOGY >> Cell Structure and Function

102. The soluble part of the cytoplasm is known as?
    A. cytosol
    B. polysomes
    C. cisternae
    D. chitin

BIOLOGY >> Evolution

103. In the evolutionary sense, which organism has the highest fitness?
    A. A sterile mule that can pull over 800 pounds
    B. A childless human male who lives to be over one hundred years old
    C. A dog who cannot give birth due to a hip abnormality, but is healthy in all other respects
    D. A prairie dog that, though smaller than the average member of her species, has twice as many healthy young in each litter

BIOLOGY >> Cell Structure and Function

104. This jelly like substance inside the plasma membrane in which all cell organelles are floating is?

A. cytoplasm
B. tonoplasm
C. karyoplasm
D. cell sap

BIOLOGY >> Bio-Energetics

105. What is pyruvate broken down to, in yeast?

A. Acetyl coA
B. alcohol
C. lactic acid
D. all of these

BIOLOGY >> Reproduction

106. Fertilization of ovum occurs during which of the following?

A. in uterus
B. in ovary
C. In distal part of oviduct
D. In proximal part of oviduct

BIOLOGY >> Diversity among Animals

107. What is an example of an oviparous mammal?

A. Penguin
B. Shark
C. Spiny anteater
D. Elephant

BIOLOGY >> Enzymes

108. Which of the following changes could lead to loss of enzymatic function?

A. Decrease in activation energy of the reaction
B. Increase in enzyme concentration
C. Change in overall enthalpy of the reaction
D. Increase in pH of the reaction

BIOLOGY >> Variation and Genetics / Inheritance

109. Which of the following represents a phenotype?

A. X-linked recessive
B. Aa
C. Autosomal dominant
D. Brown hair

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

110. The auditory relay center is found in:

A. Corpus callosum
B. Hindbrain
C. Forebrain
D. Midbrain

BIOLOGY >> Reproduction

111. Which one of the following statements is incorrect?

A. Eggs in the ovaries ripen when they meet a sperm
B. Girls are born with thousands of eggs in their ovaries.
C. Hormones control the release of the egg from the ovary.
D. One egg is released from the ovary about every month.

BIOLOGY >> Support and Movement

112. All of the following are inflammatory arthritis except:

A. Rheumatoid Arthritis
B. Osteoarthritis
C. Gouty arthritis
D. Osteomyelitis

BIOLOGY >> Life processes in animals and plants (Nutrition/Gaseous exchange/Transport)

113. During transport of carbon dioxide, blood does not become acidic due to:

A. Blood buffer
B. Neutralization of $H_2CO_3$ by $Na_2CO_3$
C. Absorption by leukocytes
D. Non-accumulation

BIOLOGY >> Life processes in animals and plants (Nutrition/Gaseous exchange/Transport)

114. The stomata are closed at which of the following temperature? (In centigrade)

A. 45
B. 35
C. 15
D. 25

BIOLOGY >> Biological Molecules Enzymes

115. Globular proteins differ from fibrous proteins in?

A. non-crystalline
B. more amino acids
C. peptide bonds
D. soluble in aqueous medium

BIOLOGY >> Enzymes

116. The optimum pH for the functioning of pancreatic lipase is?

A. 8
B. 9
C. 7
D. 6

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

117. What is the chemical characteristic of auxins?

A. Indole propionic acid
B. Indole carboxylic acid.
C. Indole acetaldehyde
D. Indole acetic acid.

BIOLOGY >> Cell Structure and Function

118. Where in a leaf mesophyll cell would you find DNA molecules?

A. Nucleus only
B. Nucleus & mitochondria only
C. Nucleus, mitochondria & chloroplasts only
D. Nucleus, mitochondria, chloroplasts & plasmids only

BIOLOGY >> Diversity among Animals

119. The animals that have features of both mammals and reptiles are?

A. duckbill platypus
B. spiny anteater
C. wolves
D. both a and b

BIOLOGY >> Evolution

120. Which of the following best describes the impact of purifying selection?

A. It increases frequency of an allele
B. It is the same as disruptive selection
C. It increases genetic diversity
D. It removes variation from the population

BIOLOGY >> Cell Structure and Function

121. Damage to one of the following immediately kills the cell whether its prokaryotic or eukaryotic?

A. nucleus
B. cell membrane
C. mitochondria
D. all of these

BIOLOGY >> Bio-Energetics

122. Fatty acids release considerable amount of energy in oxidation and ___

A. calvin cycle
B. Kreb's cycle
C. dark reaction
D. light reactions

BIOLOGY >> Reproduction

123. Secondary oocyte is ovulated from:

A. corpus luteum
B. Graafian follicle
C. primary follicle
D. germinal epithelium

BIOLOGY >> Biodiverity (Acellular Life/Variety of Life)

124. During lytic cycle how many phages are released from infected host cell?

A. 100-300
B. 100-500
C. 100-200
D. 100-400

PHYSICS >> Waves

125. Critical angle is the angle of incidence in the denser medium for which the angle of refraction in the rarer medium is equal to:

A. 0 deg
B. angle of incidence
C. twice the angle of incidence
D. 90 deg

PHYSICS >> Current Electricity

126. Volts / Ampere = _____

A. Ohm
B. Ohm meter
C. Pascal
D. None of them

PHYSICS >> Electronics

127. The process of converting alternating current to direct current is called

A . modulation
B. amplification
C. oscillation
D. rectification

PHYSICS >> Electromagnetism

128. When a charge particle enters in the magnetic field perpendicular to the velocity of charge followed path is:

A. circular
B. parabolic
C. elliptical
D. hyperbolic

PHYSICS >> Nuclear Physics

129. Isotopes means addition of additional_____ in same proton number

A. protons
B. electrons
C. neutrons
D. all of them

PHYSICS >> Electro-statistics

130. An electron is held within electric field. What happens when electron is released?

A. it moves in the direction of electric field
B. it accelerates in the direction of electric field
C. it moves in the direction opposite to electric field
D. it accelerates in the direction opposite to electric field

PHYSICS >> Electromagnetic Induction

131. The mutual induction happens in

A. AC generator
B. DC generator
C . Battery
D. Transformer

PHYSICS >> Work and Energy

132. A man pushes a wall and failed to displace it ,he does

A. Negative work
B. positive work but not maximum
C. No work at all
D. maximum work

PHYSICS >> Dawn of Modern Physics

133. Which among the following phenomenon shows particle nature of light?

A. Photoelectric effect
B. Interference
C. Polarization
D. Matter waves

PHYSICS >> Force and Motion

134. A horizontal line in displacement-time graph represents:...

A. uniform accelerated motion
B. motion with constant velocity
C. motion with constant speed
D. body at rest

PHYSICS >> Thermodynamics

135. A car of mass M is moving with speed v. The brake of mass m and specific heat capacity c, is used to stop the car. If half of the kinetic energy of the car is absorbed by the brake, than what is the increase in temperature of the brake?

A. $Mv^2$ --------- 4mc
B. $Mv^2$ --------- 2mc
C. $mv^2$ --------- 4Mc
D. $mv^2$ --------- 2Mc

PHYSICS >> Nuclear Physics

136. One isotope of Uranium is U-238. Any other isotope of Uranium must have

A. 146 protons

B. 92 protons

C. 92 neutrons

D. 146 neutrons

PHYSICS >> Nuclear Physics

137. What will be the means life of a source whose half-life is 1 hour

A. 0.693 hour

B. 1 hour

C. 1.9 hour

D. 1.443 hour

PHYSICS >> Electro-statistics

138. The force between two charges Q and q, separated by a distance d is F. What will be the force between them when distance between them is d/2?

A. 4F

B. 2F

C. F

D. F ------- 2

PHYSICS >> Waves

139. The frequency of a string on a musical instrument can be changed either by:

A. varying the diameter or by changing the length

B. varying the tension or by changing the thickness

C. varying the tension or by changing the length

D. varying the thickness or by changing the length

PHYSICS >> Waves

140. A standing-wave pattern is formed when the length of the string is:

A. an odd multiple of quarter wavelength

B. an integral multiple of quarter wavelength

C. an integral multiple of wavelength

D. an integral multiple of half wavelength

PHYSICS >> Electronics

141. If a half wave rectifier is used to convert 50Hz AC into DC, then the number of pulses present in rectifier voltage is:

A. 25

B.. 50

C. 100

D. 75

PHYSICS >> Electromagnetic Induction

142. Alternating Current Generators use:

A. coiled rings

B. split rings

C. slip rings

D. solenoid rings

PHYSICS >> Dawn of Modern Physics

143. Calculate the energy of a photon of wavelength 6600 angstroms.

A. $0.3x10^{-19}J$

B. $3x10^{-19}J$

C. $30x10^{-19}J$

D. $300 \times 10^{-19}J$

PHYSICS >> Rotational and Circular Motion

144. A body moving along the circumference of a circle completes two revolutions. If the radius of the circular path is R, the total angular displacement covered is?

A. πr
B. 2πr
C. zero
D. 4π

PHYSICS >> Electromagnetic Induction

145. Faraday law states that the rate of change of magnetic flux is equal to

A. electromotive force
B. induced current
C. induced flux
D. induced magnetic field

PHYSICS >> Thermodynamics

146. If dU and dW represent internal energy and work done then which is true?

A. dU =-dW in a adiabatic process
B. dU= dW in Isothermal process
C. dU=dW in adiabatic process
D. dU=-dW in isothermal process

PHYSICS >> Atomic spectra

147. Radiation exchange occurs in which medium

A. solid
B. liquid
C. gas
D. vacuum

PHYSICS >> Force and Motion

148. A motion with uniform negative acceleration can be represented on displacement-time graph by:

A. a horizontal line
B. a curve line with decreasing gradient
C. a straight line with constant gradient
D. a curve line with increasing gradient

PHYSICS >> Force and Motion

149. When an object moves in a straight line then:...

A. its displacement is equal to distance
B. its displacement is greater than distance
C. its displacement is less than distance
D. we cannot measure displacement

PHYSICS >> Work and Energy

150. Consider a drop of water of mass 1 gm falling from a height of 1 km. It hits the ground with a speed of 50 m/s, take g = 10 $m/s^2$. the work done by resistive force of air is

A. -8.25 J
B. -8.75 J
C 8.75 J
D. 8.5 J

PHYSICS >> Atomic spectra

151. The radiation reached on earth by sun is:

A. alpha
B. beta
C. gamma
D. all of these

PHYSICS >> Electronics

152. Transistors can be used as:

A. half wave rectifier
B. full wave rectifier
C. both
D. none of these

PHYSICS >> Nuclear Physics

153. The radioactive element when decay to first half life the new element is called:

A. daughter element
B. modified element
C. radioactive element
D. all of these

PHYSICS >> Electro-statistics

154. You have three capacitors, each of 2 μC. In which of the following combinations of the three capacitors, the resultant capacitance is 6μC?

A. all three capacitors in series
B. two capacitors are in series, one in parallel
C. two capacitors are in parallel, one in series
D. all three capacitors in parallel

PHYSICS >> Work and Energy

155. The work done by the push of air on an object of mass 10 kg falling from rest through a vertical distance of 10 m is 500 J. Find the velocity of the object at the end of 10 m fall: ($g = 10\ m/s^2$)

A. 20m/sec
B. 12m/sec
C. 5m/sec
D. 10m/sec

PHYSICS >> Thermodynamics

156. The efficiency of Carnot engine can never be 1, because:....

A. we can not achieve the higher temperature
B. we do not have an ideal working substance
C. there is always energy losses
D. we need cold reservoir at absolute zero temperature, which is not available

PHYSICS >> Current Electricity

157. Two incandescent light bulbs of 40 W and 60 W ratings are connected in series across the mains. Then

A. The bulbs together consume 100 W
B. The bulbs together consume 50 W
C. The 60 W bulb glows brighter
D. The 40 W bulb glows brighter

PHYSICS >> Rotational and Circular Motion

158. The relation between linear and angular acceleration is:

A. $a = \alpha \times r$
B. $\alpha = a \times rv$
C. $v = a \times r$
D. $r = \alpha \times v$

PHYSICS >> Current Electricity

159. When 2Ω, 4Ω and 6Ω resistors are connected in parallel their resultant equivalent resistance will be:

A. 12Ω
B. 11/12Ω
C. 12/11Ω
D. Data is insufficient

PHYSICS >> Nuclear Physics

160. Which reaction is endothermic:

A. fission
B. fusion
C. formation of gas
D. none of these

PHYSICS >> Nuclear Physics

161. How many quarks in electron:

A . 0
B. 1
C. 2
D. 3

PHYSICS >> Waves

162. Wave speed per frequency is equivalent to:

A. beats
B. Time period
C. wavelength
D. None of them

PHYSICS >> Electromagnetism

163. If magnetic field vector is B = (i + 5j + 2k ) and area vector is (6i - 2j +2k) then flux related to this is:

A. 10 Wb
B. 15 Wb
C. 20 Wb
D. 0 Wb

PHYSICS >> Electromagnetic Induction

164. Faraday's law explains how electric field will interact with:

A. electric field
B. magnetic field
C. battery
D. none of these

PHYSICS >> Current Electricity

165. Correct form of ohm's law:

A. I = VR
B. V ∝ I
C. V = IR
D. Both B and C

PHYSICS >> Current Electricity

166. Four wires of same material, the same cross-sectional area and the same length when connected in parallel give a resistance of 0.25 ohms. If the same four wires are connected is series the effective resistance will be:

A. 1 ohm
B. 2 ohm
C. 3 ohm
D. 4 ohm

PHYSICS >> Dawn of Modern Physics

167. Wave theory of light is unable to prove:

A. Black body radiation
B. Photoelectric effect
C. Compton effect
D. All of them

PHYSICS >> Electromagnetism

168. If a charged particle is at rest but we are seeing it from a train then we observe:

A. electric field
B. magnetic field
C. both fields
D. none of these

PHYSICS >> Electro-statistics

169. Consider two capacitors with capacitance 2μF and 4μF. With which type of connection will the 2μF capacitor have a greater amount of stored energy than the 4μF capacitor?

A. series
B. parallel
C. either series nor parallel
D. neither series nor parallel

PHYSICS >> Waves

170. A monochromatic light is incident on two slits and interference pattern is produced on screen at the distance L. Now one slit is covered, no light coming from it. What is the change in pattern on the screen?

A. the width of central maximum is decreased
B. the width of outer maximum is decreased
C. the intensity of central maximum will increase
D. less number of fringes will be observed

PHYSICS >> Electromagnetic Induction

171. Face of coil having clockwise current:

A. behaves like north pole
B. behaves like south pole
C. becomes magnet of varying poles
D. does not behaves like magnet

PHYSICS >> Waves

172. Wavelength of a travelling wave is 20 cm. What is the phase angle between the two points separated through a distance of 25cm?

A. $2\pi$
B. $2.5\pi$
C. $3\pi$
D. $1\pi$

PHYSICS >> Atomic spectra

173. An Ionic atom which is equivalent to hydrogen atom has wavelength equal to 1/4th of hydrogen lines is:

A. He+
B. Li++
C. Ne+9
D. Na10+

PHYSICS >> Nuclear Physics

174. Radon-222 has 136 neutrons, how many neutrons are there in Radon-220:

A. 131
B. 134
C. 136
D. none of these

PHYSICS >> Work and Energy

175. An object is displaced from position vector r1 = (2i + 3j)m to r2 = (4j + 6k)m under a force F= ($3x^2$ i+ 2y j) N. Find the work done by this force

A. 55 J
B. 83 J
C. 0
D. -83 J

PHYSICS >> Rotational and Circular Motion

176. A car of mass 2000 kg moving in a circular path of radius 10 m at a constant speed of 30m/sec. Find the centripetal force required for this purpose.

A. 1800N
B. 18N
C. 180 kN
D. 18 kN

PHYSICS >> Electronics

177. For a half-wave rectifier having diode voltage VD and supply input of V, the diode conducts for π – 2Θ, where Θ is given by:

A. tan^(-1)( VD/V)
B. sin^(-1)( VD/V)
C. cos^(-1)( VD/V)
D. cot^(-1)( VD/V)

PHYSICS >> Thermodynamics

178. P-V diagram of a diatomic gas is a straight line passing through origin. What is the molar heat capacity of the gas in the process?

A. R
B. 1.5R
C. 3R
D. 4R/3

PHYSICS >> Dawn of Modern Physics

179. When gamma photon is entered in nucleus it_____

A. de-excite the atom
B. excite the atom
C. scatter by atom
D. none of these

PHYSICS >> Force and Motion

180. When a stone is thrown horizontally with 2 m/s from a building of height 5 m then just before hitting ground its acceleration is:

A. 12 m/s^2
B. 13 m/s^2
C. 9.8 m/s^2
D. 7.6 m/s^2

ENGLISH >> Use of writing conventions of spelling, capitalization and punctuation
Demonstrate correct use of articles and prepositions Demonstrate correct use of subject-verb agreement Demonstrate correct use of writing conventions of spelling, capitalization and punctuation to clarify meaning

181. Choose the correct sentence.

A. Myra and her family are spending the summer at attabad lake.
B. Myra and her family are spending the summer at attabad lake!
C. Myra and her family are spending the summer at Attabad lake.
D. Myra and her family are spending the summer at Attabad Lake.

ENGLISH >> Correct use of articles and prepositions
Demonstrate correct use of articles and prepositions

182. Gold is _____precious metal.

A. a
B. an
C. the
D. no article

ENGLISH >> Mistakes in Sentences or short written texts
Demonstrate correct use of writing conventions of spelling, capitalization and punctuation to clarify meaning

183. Choose the correct spelling of the word:

A. servant
B. servent
C. sarvant
D. sarvent

ENGLISH >> Correct use of articles and prepositions
Demonstrate correct use of articles and prepositions

184. I work as _____ only English teacher at this school.

.A. a
B. an
C. the
D. no article

ENGLISH >> Vocabulary
Comprehend key vocabulary

185. The mechanic is working hard to _____ our car by this evening.

A. make
B. repair
C. renew
D. wander

ENGLISH >> Use of writing conventions of spelling, capitalization and punctuation
Demonstrate correct use of writing conventions of spelling, capitalization and punctuation to clarify meaning

186. should have:

A. shouldh've
B. should've
C. shouldv'e
D. should'ave

ENGLISH >> Correct use of articles and prepositions
Demonstrate correct use of articles and prepositions
187. There was _____ article about pollution in _____ paper.

A. a..an
B. an... the
C. a... the
D. a...a

ENGLISH >> Tenses
Demonstrate control of tenses and sentence structure
188. What tense is the verb in this sentence? 'The children are playing outside.'

A. Present
B. past
C. future
D. none of these

ENGLISH >> Correct use of Subject Verb Agreement
Demonstrate correct use of subject-verb agreement
189. The frogs in the garden _____ very loudly.

A. croak
B. croaks
C. croaking
D. cracked

ENGLISH >> Use of writing conventions of spelling, capitalization and punctuation
Demonstrate correct use of articles and prepositions Demonstrate correct use of subject-verb agreement Demonstrate correct use of writing conventions of spelling, capitalization and punctuation to clarify meaning
190. Choose the correct sentence.

A. It is my birthday in june I would like a book by Charles Dickens.
B. It is my birthday in June. I would like a book by Charles Dickens.
C. It is my birthday in June; I would like a book by Charles Dickens.
D. It is my birthday in June. I would like a book by Charles Dickens!

ENGLISH >> Structure of Sentence
Demonstrate control of tenses and sentence structure
191. I have two sisters.

A. Declarative
B. Imperative
C. Interrogative
D. Exclamatory

ENGLISH >> Correct use of Subject Verb Agreement
Demonstrate correct use of subject-verb agreement
192. Ninety rupees _____ too much for this bag.

A. is
B. are
C. be
D. were

**ENGLISH >>. Vocabulary**

**Comprehend key vocabulary**

**193. He _____ in this school since 2010.**

**A. studied**

**B. has been studying**

**C. studies**

**D. had studies**

**ENGLISH >> Structure of Sentence**

**Demonstrate control of tenses and sentence structure**

**194. What a tragedy!**

**A. Declarative**

**B. Imperative**

**C. Interrogative**

**D. Exclamatory**

**ENGLISH >> Correct use of Subject Verb Agreement**

**Demonstrate correct use of subject-verb agreement**

**195. None ____ none under the sun.**

**A. is**

**B. are**

**C. were**

**D. was**

**ENGLISH >>. Structure of Sentence**

**Demonstrate control of tenses and sentence structure**

**196. Which one is correct?**

**A. The rain stopped an hour ago.**

**B. The rain has stopped an hour ago**

**C. The rain stops an hour ago**

**D. The rain had stopped an hour ago**

**ENGLISH >>. Mistakes in Sentences or short written texts**

**Demonstrate correct use of writing conventions of spelling, capitalization and punctuation to clarify meaning**

**197. Choose the correct spelling of the word:**

**A. Shekspeare**

**B. Shakspare**

**C. Shakespare**

**D. Shakespeare**

**ENGLISH >> Vocabulary**
**Comprehend key vocabulary**

**198.** As he hated every minute of his life in the army, it is no wonder that he decided one day to_____ his unit.

- **A. desert**
- **B. dessert**
- **C. avoid**
- **D. suspend**

**ENGLISH >> Use of writing conventions of spelling, capitalization and punctuation**
**Demonstrate correct use of articles and prepositions Demonstrate correct use of subject-verb agreement Demonstrate correct use of writing conventions of spelling, capitalization and punctuation to clarify meaning**

**199.** Choose the correct sentence.

- **A.** Mrs Sajjad: who was sitting behind the desk, gave me a big smile.
- **B.** Mrs Sajjad who was sitting behind the desk gave me a big smile.
- **C. Mrs Sajjad, who was sitting behind the desk, gave me a big smile.**
- **D.** Mrs Sajjad, who was sitting behind the desk gave me a big smile?

**ENGLISH >> Tenses**
**Demonstrate control of tenses and sentence structure**

**200.** The sun _____ (shine) brightly.

- **A.** shine
- **B.** shined
- **C. shone**
- **D.** shining

**LOGICAL REASONING >> Logical Problems**
**Fact Checking**

**201.** Fact 1 Some pens don't write Fact 2 Only blue pens write Fact 3 some writing utensils are pens If the above three statements are facts than which of the following statement will also be a fact I. Some writing utensils don't write II. Some writing utensils are blue III. Some blue writing utensils don't write

- **A.** Only III
- **B.. Only I and II**
- **C.** Only I
- **D.** Only III and II

**LOGICAL REASONING >> Letter and Symbol Series**
**Complete the series**

**202.** What is the common vowel in Apple and Banana?

- **A.** E
- **B.** P
- **C. A**
- **D.** M

**LOGICAL REASONING >> Logical Problems**
**Fact Checking**

**203.** Fact 1: Some pens don't write Fact 2: Only blue pens write Fact 3: some writing utensils are pens If the above three statements are facts than which of the following statement will also be a fact I. Some writing utensils don't write II. Some writing utensils are blue III. Some blue writing utensils don't write

- **A.** Only III
- **B. Only I and II**
- **C.** Only I
- **D.** Only III and II

**LOGICAL REASONING >> Cause & Effect**

**Dependent Causes/ Independent Causes/**

**204. I. The student was expelled from the school. II. He was found using the drugs.**

**A. Statement I is the cause and statement II is its effect.**

**B. Statement II is the cause and statement I is its effect.**

**C Both statements I and II are independent causes**

**D. Both statements I and II are the effects of independent cause.**

**LOGICAL RE.ASONING >> Course of Action**

**Statements and Actions**

**205. Statement The Management of School M has decided to give free breakfast from next academic year to all the students in its primary section through its canteen even though they will not get any government grant. Courses of Action (I) The school will have to admit many poor students who will seek admission for the next academic year. (II) The canteen facilities and utensils have to be checked and new purchases to be made to equip it properly. (III) Funds will have to be raised to support the scheme for years to come.**

**A. Only II and III follows**

**B. Only III and I follow**

**C. Only I and II follow**

**D. Only I follows**

**LOGICAL REASONING >> Critical Reasoning**

**Number series**

**206. look at this series 7,10,8,11,9,12. Which number you think will be next?**

**A. 10**

**B. 13**

**C. 7**

**D. 12**

**LOGICAL REASONING >> Course of Action**

**Statements and Actions**

**207. Statement The availability of imported fruits has increased in the indigenous market and so the demand for indigenous fruits has been decreased. I. To help the indigenous producers of fruits, the Government should impose high import duty on these fruits, even if these are not of good quality. II. The fruit vendors should stop selling imported fruits. So that the demand for indigenous fruits would be increased.**

**A. Both of them follows**

**B. None of them follows**

**C. Only I follows**

**D. Only II follows**

**LOGICAL REASONING >> Critical Reasoning**

**Statement and Argument**

**208. Statement Should admission to the professional degrees in Pakistan be given only on merit without any concession to any particular group of students? Arguments (I) Yes. This will improve the quality of the professional institutes and degrees as they will be able to complete the degree successfully. (II) No. This will keep a large number of socially and economically backward students out of the reach of professional institutes and degrees.**

**A. If argument I is strong**

**B. If only argument II is strong**

**C. If both I and II are strong.**

**D. If neither I nor II is strong**

**LOGICAL REASONING >> Cause & Effect**

**Dependent Causes/ Independent Causes/**

**209. Statement: Rural and semi urban areas in the country have been suffering due to load shedding for quite some time. If the government is not able to overcome the power crisis, load shedding will be extended even to the urban areas.**

**A. Statement I is the cause and statement II is its effect.**

**B. Statement II is the cause and statement I is its effect**

**C . Both the statements I and II are independent causes**

**D. Both the statements I and II are effects of some common cause**

**LOGICAL REASONING >> Logical Problems**

**Statements and Conclusions**

**210. 1: All clocks are watches.**

**2: Some clocks are alarms. Conclusion:**

**I: Some Alarms are watches. II: All watches are alarm.**

**A. Only conclusion (I) follows**

**B. Only conclusion (II) follows**

**C. Both conclusions follow**

**D. Neither conclusion (I) nor conclusion (II) follows**