

CHEMISTRY >> Solids

1. The smallest part of crystal lattice showing all the properties of a crystal is called as _____?
- A. Crystallite
 - B. Unit cell**
 - C. Unit crystal
 - D. Monomer

CHEMISTRY >> Electrochemistry

2. A voltaic cell produces electrical energy from:
- A. Potential energy
 - B. Chemical energy of ions**
 - C. Kinetic Energy
 - D. Free Electrons

CHEMISTRY >> Atomic Structure

3. The value of Planck's constant 'h' is:
- A. 6.626×10^{-34} KJs
 - B. 6.262×10^{-34} Js
 - C. 6.626×10^{-34} Js**
 - D. 6.262×10^{-34} K Js

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

4. Thermochemistry is very important to learn about
- A. Chemical Equilibrium
 - B. Chemical Bonding
 - C. Heat contents of a compound
 - D. All of these**

CHEMISTRY >> Reaction Kinetics

5. Rate of chemical reactions helps in designing industrial process which is:
- A. Completed instantaneously
 - B. Slow
 - C. Economical**
 - D. None of these

CHEMISTRY >> S and P Block elements

6. Which alkali metal only combine with Nitrogen?

- A. Li**
- B. Fr
- C. Cs
- D. K

CHEMISTRY >> Gases

7. Joule-Thomson effect is used to _____ the temperature of a gas to liquefy it:
- A. raise
 - B. higher
 - C. equalize
 - D. lower**

CHEMISTRY >> Chemical Equilibrium

8. Buffer solutions resist change in their:
- A. temperature
 - B. solubility
 - C. volatility
 - D. pH**

CHEMISTRY >> Chemical Bonding

9. The chemical reactivities of elements, depend upon their characteristics electronic:

- A. shields
- B. forces
- C. configurations.**
- D. shells

CHEMISTRY >> Carboxylic Acids

10. Reaction of carboxylic acids with base is a _____ reaction?

- A. Neutralization**
- B. Esterification
- C. Oxidation
- D. All of these

CHEMISTRY >> Chemistry of Hydrocarbons

11. Which of the following are product of following reaction in the presence of sunlight? $\text{CH}_4 + \text{Cl}_2 \rightarrow ?$

- A. CHCl_3
- B. CCl_4
- C. $\text{CH}_2\text{Cl}_2, \text{CH}_3\text{Cl}$
- D. All of these**

CHEMISTRY >> Alcohol and Phenols

12. Give IUPAC name of following compound Tert-Butanol:

- A. 3 - methyl-2-propanol
- B. 3-methyl-1-propanol
- C. 2-hydroxy-1-propanol
- D. 2-methyl-2-propanol**

CHEMISTRY >> Fundamental Principles of Organic Chemistry

13. Isopentane is an example of _____?

- A. Aromatic compounds
- B. Branched chain compound**
- C. Alicyclic compounds
- D. None of these

CHEMISTRY >> Chemical Bonding

14. In aluminum oxide ,ions are present in the ratio 2:3, its formula in:

- A. AlO
- B. Al_2O
- C. Al_2O_3**
- D. Al_3O_2

CHEMISTRY >> Gases

15. $\text{PV}/n\text{RT}$ for an ideal gas is called:

- A. expansion factor
- B. depression factor
- C. compressibility factor**
- D. diffusion factor

CHEMISTRY >> Atomic Structure

16. In which direction Cathode rays deflected in the presence of magnetic field?

- A. Moves upward**
- B. Moves downward
- C. Move randomly
- D. Moves in straight li

CHEMISTRY >> Macromolecules

17. Enzymes are also called as _____?

- A. Catalyst
- B. Lipoproteins
- C. Conjugated molecules
- D. Biocatalyst**

CHEMISTRY >> Reaction Kinetics

18. Instantaneous rate of reaction is the rate at any:

- A. At Equilibrium
- B. one instant**
- C. Given Temperature
- D. Given Pressure

CHEMISTRY >> Aldehydes and ketones

19. Base catalyzed reaction of carbonyl group takes place in presence of:

- A. Weak electrophile
- B. Strong nucleophile**
- C. Weak nucleophile
- D. Strong electrophile

CHEMISTRY >> Fundamental Principles of Organic Chemistry

20. Which of the following has anti knocking properties?

- A. Tetramethyl lead
- B. Tetraethyl lead
- C. Iso-octane
- D. All of these**

CHEMISTRY >> Carboxylic Acids

21. Formic acid is obtained from _____?

- A. Apples
- B. Butter
- C. Ant's sting**
- D. Foam

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

22. What does thermodynamics means?

- A. Study of change in state of the system
- B. Study of energy changes during a process**
- C. Study of material content of a system
- D. All of these

CHEMISTRY >> S and P Block elements

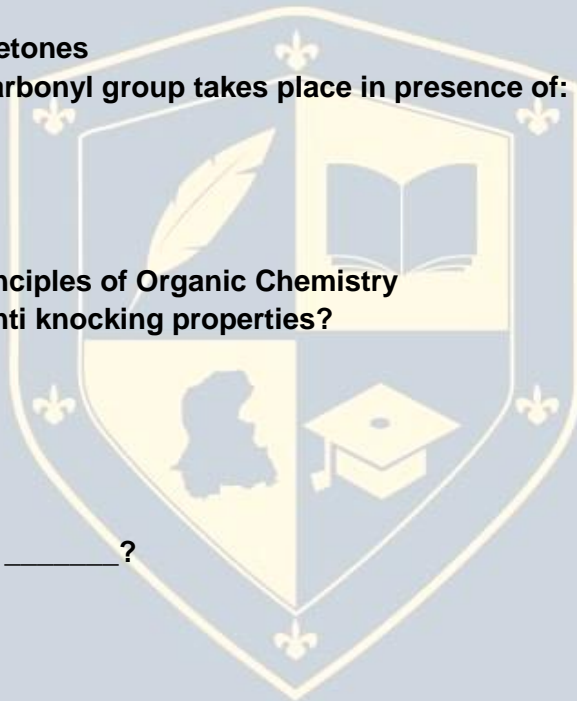
23. Ionic Salts of Group 1 elements can conduct Electricity when they are in _____?

- A. Solid form
- B. Molten form
- C. Aqueous form
- D. Both b and c**

CHEMISTRY >> Aldehydes and ketones

24. What is the general formula of Aldehyde?

- A. RCOR
- B. RCOOR
- C. RCHO**
- D. RCOOH



CHEMISTRY >> Gases

25. 1 Pascal is equal to:

- A. 1 Nm^{-2}
- B. 76 t rr
- C. 1 1325 pa
- D. all of these**

CHEMISTRY >> Macromolecules

26. Human body contains _____ kind of proteins?

- A. 60000
- B. Almost 10000**
- C. 5000
- D. 200

CHEMISTRY >> Solids

27. when water freezes at C, spaces occur between its molecules which results in its ____

- A. decrease in volume
- B. decrease in density**
- C. increase in density
- D. increase in volume

CHEMISTRY >> Chemistry of Hydrocarbons

28. Which one of the following is correct value of resonance energy of benzene?

- A. 155.5kJ/mol
- B. 150.5kJ/mol**
- C. 170 kJ/mol
- D. 140.5kJ/mol

CHEMISTRY >> Atomic Structure

29. An electron in an atom is completely described by its:

- A. 2 quantum numbers
- B. only one quantum number
- C. four quantum numbers**
- D. 3 quantum numbers

CHEMISTRY >> Solids

30. which one of them can conduct electricity in solid state:

- A. diamond
- B. graphite**
- C. Nail
- D. iodine

CHEMISTRY >> Alkyl Halides

31. What is the reason for the reactivity of Grignard reagent?

- A. Presence of Mg atom
- B. Polarity of C-H bond
- C. Polarity of C-Mg bond**
- D. Presence of electrophilic carbon

CHEMISTRY >> Alcohol and Phenols

32. The alcohols in which the carbon which is attach to the OH group is further attach with two carbon atoms is called as?

- A. Primary alcohols
- B. Secondary alcohols**
- C. Tertiary alcohols
- D. None of these

CHEMISTRY >> Chemical Bonding

33. In CCl_4 , all C-CL bonds are _____ but molecule is _____ overall.

- A. polar, nonpolar
- B. nonpolar, neutral
- C. polar, Neutral
- D. neutral, on polar

CHEMISTRY >> Transition Elements

34. Lanthanides and actinides are also called as _____?

- A. Rare earth elements
- B. Outer transition elements
- C. Non typical elements
- D. Typical transition elements

CHEMISTRY >> Electrochemistry

35. In a voltaic cell, two half cells actually separates:

- A. Two electrolytes
- B. Anode and Cathode
- C. Oxidation Half cell and Reduction half Cell
- D. All of these

CHEMISTRY >> Liquids

36. In non-polar molecules, the strength of London forces depends on number of:

- A. moles
- B. molecules
- C. atoms
- D. all of these

CHEMISTRY >> Aldehydes and ketones

37. Benzophenone is also known as :

- A. Diphenyl ketone
- B. Ethyl Phenyl ketone
- C. Tri Phenyl ketone
- D. None of these

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

38. The statement; energy of system and surrounding is conserved, is related to which law of thermodynamic?

- A. 1st law
- B. 2nd law
- C. 3rd law
- D. None of these

CHEMISTRY >> Liquids

39. Evaporation is reverse of _____?

- A. Sublimation
- B. Freezing
- C. Melting
- D. Condensation

CHEMISTRY >> Chemistry of Hydrocarbons

40. Ethane is obtained by electrolyzing _____.

- A. Potassium formate
- B. Potassium succinate
- C. Potassium acetate
- D. Potassium fumarate

CHEMISTRY >> Introduction to Fundamental Concepts of Chemistry

41. Dalton's atomic theory couldn't explain the concept about:

- A. isomers
- B. protons
- C. isotopes**
- D. nucleus

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

42. Which one of the following is not the property of a system?

- A. Enthalpy
- B. Internal energy
- C. Thermal energy**
- D. Temperature

CHEMISTRY >> Carboxylic Acids

43. Freezing point of acetic acid:

- A. 16.6°C**
- B. 18°C
- C. -20°C
- D. 10°C

CHEMISTRY >> Transition Elements

44. Which is sold as fertilizer:

- A. CaSiO_3
- B. Na_2SiO_3
- C. $\text{Ca}_3(\text{PO}_4)_2$**
- D. MnSiO_3

CHEMISTRY >> Liquids

45. Which of the following shows H-bonding?

- A. $\text{CH}_3\text{CH}_2\text{OH}$
- B. $\text{CH}_3\text{-O-CH}_3$
- C. $\text{CH}_3\text{CH}_2\text{Cl}$
- D. All of these**

CHEMISTRY >> S and P Block elements

46. The element caesium bears resemblance with:

- A. Ca
- B. Cr
- C. Both of the above
- D. None of the above**

CHEMISTRY >> Alcohol and Phenols

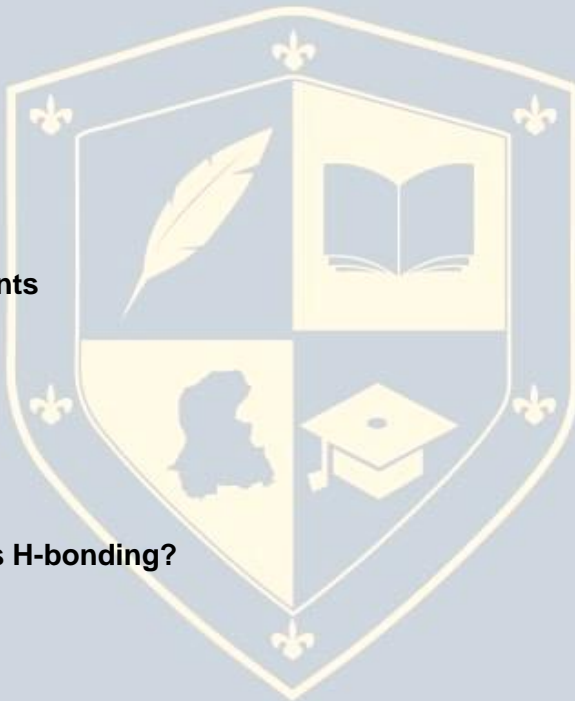
47. Which of the following is a dihydric alcohol?

- A. Ethanol
- B. Methanol
- C. Glycerol
- D. Glycol**

CHEMISTRY >> Alkyl Halides

48. If in a solution of alkyl halide in a nonpolar solvent, base is added which of the following reaction takes place?

- A. SN_2
- B. E_1
- C. SN_1
- D. E_2**



SINDH ACADEMY
UMERKOT

CHEMISTRY >> Atomic Structure

49. It is not possible for us to measure exact position and exact momentum of electron simultaneously is the statement of:

- A. de-Broglie
- B. Mosley
- C. Heisenberg
- D. Neil Bohr

CHEMISTRY >> Chemical Equilibrium

50. The catalyst in the formation of ester from alcohol and a weak acid is:

- A. A base
- B. Palladium
- C. Nickel
- D. A mineral Acid

CHEMISTRY >> Gases

51. The least value of Van der Waals constant is of:

- A. H₂
- B. N₂
- C. CO₂
- D. Cl

CHEMISTRY >> Aldehydes and ketones

52. Cyanohydrins when reacted with mineral acid produces _____?

- A. Beta Hydroxy carboxylic acids
- B. Alpha hydroxy carboxylic acids
- C. Carboxylic acids
- D. Unsaturated acids

CHEMISTRY >> Introduction to Fundamental Concepts of Chemistry

53. The smallest number of molecules are present in:

- A. 3.6g of H₂
- B. 4.8g of C₂H₅OH
- C. 2.8 g of CO
- D. 5.4 g of N₂O₅

CHEMISTRY >> Chemistry of Hydrocarbons

54. Shape of benzene molecule is:

- A. Hexagonal planar
- B. Square planar
- C. Trigonal planar
- D. linear

CHEMISTRY >> Chemical Bonding

55. A bonding electron pairs of is attracted by _____ of atoms.

- A. one nucleus
- B. both nuclei of atoms
- C. lone pair
- D. shared pair of electron

CHEMISTRY >> Electrochemistry

56. In Ion electron method, while balancing oxygen and Hydrogen atoms:

- A. First balance Hydrogen
- B. First balance oxygen
- C. balance both at the same time
- D. order doesn't matter

PHYSICS >> Electromagnetic Induction

57. 'X' is a rectangular coil consisting of a large number of turns of copper wire wound over a soft iron core in an a.c. generator. Identify X:

A. Slip rings

B. Armature

C. Copper brushes

D. Field magnet

PHYSICS >> Thermodynamics

58. In Thermodynamics zeroth law is related with:

A. Work

B. Energy

C. Thermal equilibrium

D. Entropy

PHYSICS >> Work and Energy

59. Work done can be calculated by taking:

A. dot product of force and displacement

B. cross product of force and displacement

C. both cross and dot product

D. none of these

PHYSICS >> Atomic spectra

60. He-Ne laser light has wavelength of:

A. RED

B. YELLOW

C. BLUE

D. ORANGE

PHYSICS >> Current Electricity

61. The SI unit of power is?

A. Hz

B. Sec

C. Watt

D. Joules

PHYSICS >> Rotational and Circular Motion

62. The angular displacement is taken to be positive when the rotation is:

A. linear

B. non-linear

C. clockwise

D. anti-clockwise

PHYSICS >> Waves

63. The negative sign in $F = -k.x$, indicates that:

A. F is directed opposite to x

B. F is directed along x

C. F is always equal to x

D. none of these

PHYSICS >> Nuclear Physics

64. Half life of a radiation active element is that period in which half of the atoms:

A. diffuse

B. decompose

C. disturbed

D. decay

PHYSICS >> Electronics

65. Which of the following is a type of rectifier:

- A. half wave
- B. full wave
- C. bridge
- D. All of the above

PHYSICS >> Current Electricity

66. _____ relationship exists between current and voltage in terms of Ohm's law.

- A. Non linear
- B. Varying
- C. Linear
- D. None of them

PHYSICS >> Thermodynamics

67. The value of universal gas, R, constant is:

- A. 8.314 J/molK
- B. 1.38×10^{-23} J/K
- C. 6.63×10^{-11} Nm²/kg²
- D. 1.6×10^{-19} C

PHYSICS >> Force and Motion

68. If an object moves with constant velocity then its acceleration is:

- A. zero
- B. nonzero
- C. infinite
- D. none of these

PHYSICS >> Electro-statistics

69. If two point charges of charge q₁ and q₂ are placed at distance d. The force between them is proportional to:

- A. d
- B. d²
- C. $1 \text{ ----- } d$
- D. $1 \text{ ----- } d^2$

PHYSICS >> Nuclear Physics

70. The fission reaction is slow reaction:

- A. TRUE
- B. FALSE
- C. true when neutrons slows down
- D. any of these

PHYSICS >> Dawn of Modern Physics

71. In stretched string the frequency of vibration is given by $f = \frac{1}{2L} \sqrt{F/m}$. In this equation m has dimension:

- A. ML⁻²
- B. ML⁻¹
- C. M
- D. ML

PHYSICS >> Electro-statistics

72. You have two identical capacitors. They can be connected in series or in parallel. If you want the smallest equivalent capacitance for the combination, how should you connect them?

- A. in parallel
- B. in series
- C. either way because both combinations have the same capacitance
- D. we can not determine, because presence of resistance in the circuit determines capacitance

PHYSICS >> Waves

73. What is echo of sound?

- A. When sound reflects back
- B. When sound gets absorbed
- C. When sound penetrates into objects
- D. All of them

PHYSICS >> Rotational and Circular Motion

74. A stone is whirled in a vertical circle at the end of the string. When the stone is at the highest position the tension in the string is?

- A. Max
- B. Zero
- C. Equal to the weight of the stone
- D. Less than the weight of the stone

PHYSICS >> Atomic spectra

75. Which source is associated with a line emission spectra:

- A. Electric fibre
- B. Neon street sign
- C. Red traffic light
- D. Sun

PHYSICS >> Waves

76. When a wave comes across the boundary of two media, a part of it is reflected back. Which statement is true about reflected wave:

- A. its wavelength changes depending on the nature of the boundary
- B. its frequency changes depending on the nature of the boundary
- C. its amplitude increases depending on the nature of the boundary
- D. its phase may changes depending on the nature of the boundary

PHYSICS >> Work and Energy

77. A body of mass 10 kg is moved parallel to the ground, through a distance of 2 m. The work done against gravitational force is:

- A. zero
- B. 196 J
- C. -196 J
- D. 48 J

PHYSICS >> Electromagnetism

78. Unit of relative permeability is:

- A. henry
- B. henry/m
- C. dimensionless
- D. henry/sq. m

PHYSICS >> Waves

79. Michelson measured the length of standard metre in terms of the wavelength of:

- A. green cadmium light
- B. violet cadmium light
- C. red cadmium light
- D. blue cadmium light

PHYSICS >> Thermodynamics

80. Which of this is constant in adiabatic process:

- A. total heat
- B. work done
- C. Entropy
- D. both a) and c)

PHYSICS >> Thermodynamics

81. Which of the following is not an assumption of the kinetic model of an ideal gas?

- A. particles collide elastically
- B. kinetic energy of a given particle is same**
- C. the duration of collision between molecules is very short
- D. intermolecular potential energy of the molecules is zero

PHYSICS >> Work and Energy

82. Consider a drop of water of mass 1 gm falling from a height of 1 km. It hits the ground with a speed of 50m/s, take $g = 10 \text{ m/s}^2$. the work done by gravitational force is:

- A. 1.25 J
- B. 100 J
- C. 10 J**
- D. -10 J

PHYSICS >> Electromagnetism

83. A charged particle enters in a strong magnetic field, its K.E:

- A. decreases
- B. increases then decreases
- C. becomes zero
- D. remains constant**

PHYSICS >> Electromagnetism

84. Do magnetic flux lines intersect?

- A. Yes
- B. No**
- C. depends on strength of field
- D. cannot be determined

PHYSICS >> Atomic spectra

85. Woolen clothes keep the body warm because of:

- A. bad conductivity**
- B. good conductivity
- C. low temperature
- D. none of these

PHYSICS >> Electronics

86. Centre tap rectifier circuit consists of _____ diode.

- A. 1
- B. 200%**
- C. 300%
- D. 400%

PHYSICS >> Nuclear Physics

87. Which of the following substances cannot be emitted by radioactive substances during their decay?

- A. proton**
- B. neutrinos
- C. helium nuclei
- D. electrons

PHYSICS >> Electronics

88. Ripple factor is defined as:

- A. I_{rms}/V_{rms}
- B. I_{dc}/I_{rms}
- C. I_{rms}/I_{dc}**
- D. $I_{rms} + I_{dc}$

PHYSICS >> Electromagnetic Induction

89. If the peak voltage is 9V, calculate the peak to peak voltage.

- A. 9V
- B. 18V**
- C. 4.5V
- D. 0V

PHYSICS >> Work and Energy

90. A constant force of 10 N is applied on a body which causes displacement of 12 cm what will be the work done:

- A. 120 J
- B. 12 J**
- C. 1.2 J
- D. 18 J

PHYSICS >> Electro-statistics

91. Which of the following statements is correct? The electric field at a point is:

- A. continuous if there is a charge at that point
- B. Always continuous
- C. discontinuous only if there is a negative charge at that point
- D. discontinuous if there is a charge at that point**

PHYSICS >> Dawn of Modern Physics

92. x-rays can be deflect by:

- A. electric field
- B. magnetic field
- C. both a & B
- D. none of these**

PHYSICS >> Electromagnetic Induction

93. Lenz's law provides information about direction of:

- A. inductance
- B. induced current**
- C. induced flux
- D. induced magnetic field

PHYSICS >> Nuclear Physics

94. To start a fusion reaction, energy required is:

- A. small
- B. large**
- C. infinite
- D. zero

PHYSICS >> Waves

95. What is the phase difference between the center of compression and the center of rarefaction in longitudinal wave?

- A. 0 deg
- B. 45 deg
- C. 90 deg
- D. 180 deg**

PHYSICS >> Force and Motion

96. Acceleration of a moving train when it start its motion is:

- A. negative
- B. zero
- C. positive**
- D. infinite

PHYSICS >> Thermodynamics

97. A cycle tyre bursts suddenly is an example of:

- A. Isothermal process
- B. Isochoric process
- C. adiabatic process**
- D. Isobaric process

PHYSICS >> Current Electricity

98. The resistance of a conductor at absolute zero (0 K) is:

- A. Almost zero**
- B. Almost infinite
- C. No prediction at all
- D. May increase or decrease

PHYSICS >> Electro-statistics

99. The unit of electric flux density is:

- A. N/C
- B. V/m
- C. Nm
- D. A and B**

PHYSICS >> Electromagnetic Induction

100. The open-circuit test in a transformer is used to measure:

- A. Copper loss
- B. winding loss
- C. Total loss
- D. core loss**

PHYSICS >> Electronics

101. Peak voltage in the output of half wave rectifier is 10V so dc component of output voltage is:

- A. $10\sqrt{2}$
- B. $10/\sqrt{2}$
- C. $10/\pi$
- D. 10π**

PHYSICS >> Current Electricity

102. Electrical power is given by P=

- A. VI
- B. I² R
- C. V² / R
- D. all**

PHYSICS >> Dawn of Modern Physics

103. Which of the following statements is incorrect about the photons:

- A. Momentum of photon h/λ
- B. Rest mass of photon is zero
- C. photon exert no pressure**
- D. Energy of photon is $h\nu$

PHYSICS >> Electro-statistics

104. Oil droplets of mass m and charge q are dropped between two horizontal parallel plates. Air resistance is negligible. The droplets are falling at constant velocity when electric field strength between the plates is E. Which of the following is true?

- A. $E=0$
- B. $E < mg / q$
- C. $E = mg / q$**
- D. $E > mg / q$

PHYSICS >> Force and Motion

105. If the velocity of particle is varying linearly with time then shape of d-t curve would be:

- A. linear
- B. quadratic
- C. cubic
- D. decreasing linearly

PHYSICS >> Thermodynamics

106. 300 W heater is used to boil 500g of water at 100C. How long should the heater be switched on?
Specific latent heat of vaporization of water is 2230 J/g.

- A. 62 mins
- B. 62 sec
- C. 1.5 hour
- D. 0.5 hour

PHYSICS >> Nuclear Physics

107. The charge on gamma rays is:

- A. 1+
- B. 1-
- C. 0
- D. none of these

PHYSICS >> Electromagnetic Induction

108. A 220 V main supply is connected to a resistance of 100 k ohms. The effective current is:

- A. 2.2 mA
- B. $2.2/\sqrt{2}$ mA
- C. $2.2\sqrt{2}$ mA
- D. none of the above

PHYSICS >> Thermodynamics

109. An ideal gas of N molecules are enclosed in a container at a constant pressure p. The graph between volume of gas and its absolute temperature is a straight line. What is the gradient of the graph?

- A. $N R$ ----- p
- B. $N R P$
- C. $N k$ ----- p
- D. $N k p$

PHYSICS >> Rotational and Circular Motion

110. The angle between linear and angular velocity can never be:

- A. zero
- B. 90
- C. 270
- D. all of these

PHYSICS >> Electromagnetism

111. A circular loop of area 0.05 m^2 rotates in a uniform magnetic field of 0.2 T. If the loop rotates about its diameter which is perpendicular to the magnetic field, find flux linked with loop when its plane is normal to the field:

- A. 0.01 wb
- B. 0 Wb
- C. 8.66×10^{-3} Wb
- D. 0.86 wb

PHYSICS >> Waves

112. Two tuning forks produces N beats. If one of these tuning forks has the frequency f, then the frequency of the other would be:

- A. $N - f$
- B. N / f
- C. $N * f$
- D. $N + f$

BIOLOGY >> Bio-Energetics

113. In all plants the major sites of photosynthesis are?

- A. Leaf
- B. Stems
- C. Roots
- D. Branches

BIOLOGY >> Evolution

114. Inbreeding increases the frequency of which of the following?

- A. heterozygous
- B. genetic diversity
- C. genetic linkage
- D. homozygous

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

115. Which of the following is not respiration?

- A. Breakdown of glucose
- B. Formation of glucose
- C. Release of energy
- D. Exchange of gases

BIOLOGY >> Evolution

116. The genetic change in a population caused by natural selection is called?

- A. polymorphism
- B. specialization
- C. gene linkage
- D. adaptation

BIOLOGY >> Enzymes

117. The lock and key model of enzyme action was proposed by:

- A. Louis Pasteur
- B. Emil Fischer
- C. Daniel Koshland
- D. Urey Miller

BIOLOGY >> Diversity among Animals

118. The only aquatic arthropods:

- A. Crustaceans
- B. Arachnids
- C. Myriapods
- D. Gastopods

BIOLOGY >> Biological Molecules Enzymes

119. Human accumulated glycogen is an example of:

- A. phospholipid
- B. polysacchrides
- C. carbohydrates
- D. both b and c

BIOLOGY >> Enzymes

120. In addition to active site, allosteric enzymes contain?

- A. inhibitors
- B. substrate
- C. allosteric site**
- D. polypeptide chains

BIOLOGY >> Prokaryotes

121. The average diameter of large viruses is approximately equal to:

- A. 100 to 160 nm
- B. 100 to 200 nm**
- C. 100 nm to 360 nm
- D. always below than 100 nm

BIOLOGY >> Diversity among Animals

122. Pseudocoelom develops from which of the following?

- A. Blastopore
- B. Plastoquinone
- C. Splitting of mesoderm
- D. Blastocoel**

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

123. Viruses that attack bacteria are called?

- A. Virophage
- B. Lysophage
- C. Bacteriophage**
- D. None of the above

BIOLOGY >> Bio-Energetics

124. Which statement correctly outlines some of the main events in photosynthesis?

- A. A 5C carbohydrate accepts carbon dioxide and is then reduced by NADPH derived from photophosphorylation**
- B. A 3C carbohydrate is regenerated and reduced by hydrogen molecules derived from photophosphorylation.
- C. Photolysis uses light to produce reduced NADP and oxygen which are used to reduce a 3C carbohydrate.
- D. Photolysis produces NADPH and ATP which are used to reduce a 5C carbohydrate

BIOLOGY >> Reproduction

125. Which factors affect the female reproductive cycle?

- A. Malnourishment
- B. emotional stress
- C. Both A and B**
- D. None of these

BIOLOGY >> Variation and Genetics / Inheritance

126. The movement of genes from one species to another is?

- A. penetrance
- B. expressivity
- C. codominance
- D. linkage**

BIOLOGY >> Diversity among Animals

127. Which of the following organism has a eel like body?

- A. Chondrichthyes
- B. Osteichthyes
- C. Cyclostomata**
- D. both a and b

BIOLOGY >> Biological Molecules Enzymes

128. A 25 years old female with chronic fatigue was diagnosed with iron deficiency anemia and low blood count what is the cause of her fatigue?

- A. reduction in amount of Fe-S centers
- B. lowered production of water from the electron transport chain that cause dehydration
- C. iron is important for electron transport chain**
- D. iron is important for NADH production

BIOLOGY >> Bio-Energetics

129. Cytochromes are electron transport intermediates containing?

- A. myoglobin
- B. heam**
- C. globulin
- D. fibrin

BIOLOGY >> Reproduction

130. Which of the following is a oviparous animal?

- A. pidgeon**
- B. elephant
- C. sheep
- D. humans

BIOLOGY >> Evolution

131. Darwin's Theory of evolution by natural selection is based on all of the following postulates except ?

- A. some individuals are more successful in surviving and reproduction than others
- B. individuals within a population are variable
- C. the survival and reproduction of individuals is not random
- D. the survival and reproduction of individuals is random**

BIOLOGY >> Prokaryotes

132. Which type of bacterial genetic recombination involves the use of a viral vector?

- A. transduction**
- B. transformation
- C. binary fission
- D. conjugation

BIOLOGY >> Evolution

133. Neo-Darwinism has integrated discoveries and ideas from which of the following fields of study?

- A. genetics
- B. paleontology
- C. taxonomy
- D. all of these**

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

134. Which of the following is the key function of pleural cavity?

- A. Reduces friction between membranes
- B. Slide easily on one another
- C. allows membrane to adhere on one another
- D. all of these are correct**

BIOLOGY >> Variation and Genetics / Inheritance

135. Which of the following blood group is always heterozygous?

- A. A
- B. B
- C. AB**
- D. O

BIOLOGY >> Variation and Genetics / Inheritance

136. A man with type A- blood and a woman with type AB+ blood have a child. Which blood type is impossible for that child to have?

- A. A-
- B. B-
- C. AB+
- D. O-**

BIOLOGY >> Enzymes

137. A small organic, non protein molecule that carries chemical groups between enzymes is?

- A. cofactor
- B. catalyst
- C. substrate
- D. coenzyme**

BIOLOGY >> Cell Structure and Function

138. Which of the following cell organelle does not contain DNA?

- A. nucleus
- B. Mitochondria
- C. lysosomes**
- D. chloroplast

BIOLOGY >> Prokaryotes

139. Cell wall of a bacterial cell is more permeable in

- A. gram positive bacteria
- B. gram negative bacteria
- C. both a & b
- D. mycoplasmas

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

140. When was the agent causing AIDS discovered?

- A. 1994
- B. 1984**
- C. 1950
- D. 1920

BIOLOGY >> Diversity among Animals

141. These give rise to nematocysts in Cnidaria.

- A. Cnidocytes**
- B. Gastrozooids
- C. Hydrozooids
- D. Mesoglea

BIOLOGY >> Evolution

142. Lamarck's ideas on biological evolution contained correct and incorrect notions. Which of his ideas is correct?

- A. Acquired traits can be passed on to offspring
- B. Living forms become perfect with time
- C. nervous fluids are passed on from generation to generation
- D. Evolution is related to changes in adaptation to the environment**

BIOLOGY >> Bio-Energetics

143. The oxidation phase of glycolysis is?

- A. energy consuming
- B. energy yielding**
- C. net neutralization of energy
- D. both a and c

BIOLOGY >> Support and Movement

144. Which type of cartilage is the most abundant in human body?

- A. Hyaline cartilage**
- B. elastic cartilage
- C. fibrocartilage
- D. None of these

BIOLOGY >> Cell Structure and Function

145. The spent energy in the form of ADP is regenerated by mitochondria into which of the following form?

- A. AMP
- B. ATP**
- C. ADP
- D. all of these

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

146. The thick muscular structure which is present below the pair of lungs is known as:

- A. pharynx
- B. diaphragm**
- C. bronchi
- D. None of these

BIOLOGY >> Reproduction

147. Sertoli cells are responsible for which of the following?

- A. Provide liquid medium to cells in testes
- B. Provide protection and nourishment to cells
- C. Secrete testosterone
- D. both a and b**

BIOLOGY >> Cell Structure and Function

148. Which of the following cells do not possess a nucleus?

- A. Sieve tube cells
- B. Bacteria
- C. Red blood cells
- D. All of the above**

BIOLOGY >> Biological Molecules Enzymes

149. Rarely occurring monosaccharides observed in some bacteria is?

- A. Tetroses**
- B. hexoses
- C. pentoses
- D. trioses

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

150. The cartilage protects the trachea from:

- A. collapsing**
- B. swelling
- C. vibrating
- D. breaking

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

151. An involuntary and nearly instantaneous movement in response to a stimulus is called:

- A. Reflex**
- B. reflex arc
- C. Neuron
- D. Synapse

BIOLOGY >> Cell Structure and Function

152. A disease caused by the absence of a lysosomal enzyme responsible for lipid catabolism ____.

- A. Tay-Sach's disease**
- B. Phenylketonuria
- C. Klinefelter's syndrome
- D. Down's syndrome

BIOLOGY >> Support and Movement

153. The joint that allows the movements in two directions is called:

- A. Fibrous joints
- B. Cartilaginous Joints
- C. Hinge joint**
- D. Ball and socket joint

BIOLOGY >> Evolution

154. If we consider Hardy-Weinberg law, then following is incorrect in its sense?

- A. Mutations cause changes in genetic frequency
- B. Migration changes allele frequency
- C. There should not be selection
- D. Non-random mating will reduce chances of evolution**

BIOLOGY >> Prokaryotes

155. Which of the following types of bacterial reproduction is most similar to mitosis?

- A. transduction
- B. transformation
- C. binary fission**
- D. conjugation

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

156. A series of C shaped cartilage rings are found in the wall of:

- A. epiglottis
- B. trachea**
- C. bronchi
- D. none of these

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

157. What type of virus is the smallpox virus?

- A. DNA enveloped virus**
- B. RNA enveloped virus
- C. DNA virus
- D. RNA naked virus

BIOLOGY >> Support and Movement

158. The most important function of troponin is?

- A. bind with actin
- B. bind with Ca²⁺ ions.
- C. bind with tropomyosin.
- D. all of these**

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

159. Midbrain is also known as:

- A. Pons
- B. Medulla
- C. mesencephalon**
- D. None of these

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

160. Which of the following molecule facilitate the entry of HIV in human body:

- A. Glycoprotein
- B. Liposomes
- C. polysaccharides
- D. lipopolysaccharides

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

161. Which type of viruses infect E. Coli bacteria?

- A. T phages
- B. p phages
- C. both
- D. none

BIOLOGY >> Diversity among Animals

162. Which of the following use book lungs to breathe?

- A. earthworm
- B. scorpions
- C. fish
- D. all of these

BIOLOGY >> Enzymes

163. Excessive increase in temperature of medium causes the enzyme molecule to have which of the following changes?

- A. activate
- B. unaffected
- C. denature
- D. all of these

BIOLOGY >> Bio-Energetics

164. What is the coenzyme that facilitates the oxidation of fumarate?

- A. FAD
- B. PADH2
- C. NAD
- D. NADPH

BIOLOGY >> Evolution

165. Which condition can be explained by Lamarckism?

- A. How giraffes got their long neck
- B. How humans lost their tail
- C. How humans became bipedal
- D. all of these

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

166. The movement of minerals or water via plasmodesmata is known as:

- A. apoplast
- B. symplast
- C. vascular
- D. All of these

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

167. The brain area responsible for screening all incoming sensory data is:

- A. Hypothalamus
- B. Thalamus
- C. cerebellum
- D. cerebral cortex

BIOLOGY >> Cell Structure and Function

168. An animal has 80 chromosomes in its gametes, how many chromosomes will be seen in the animal's muscle cells?

- A. 120
- B. 240
- C. 40
- D. 160**

BIOLOGY >> Evolution

169. The structures of the front flipper of a whale and the forearm of a wolf have similar bone structure and derive from a common ancestor. This is an example of which of the following?

- A. convergent evolution
- B. analogous structures
- C. homologous structures**
- D. bottleneck affect

BIOLOGY >> Reproduction

170. Where does fertilization typically take place in the female?

- A. uterus
- B. ovaries
- C. eggs
- D. fallopian tube**

BIOLOGY >> Enzymes

171. A researcher has designed a new type of inhibitor that binds at the active site of an enzyme. What type of inhibition does this molecule display?

- A. Uncompetitive inhibition
- B. Noncompetitive inhibition
- C. Competitive inhibition**
- D. all of these

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

172. Which of the following is not true of virions?

- A. Reproduce independently**
- B. contain DNA
- C. Contain RNA
- D. Extracellular

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

173. A key property of a living being is that it contains _____ for making its protein.

- A. amino acids
- B. mitochondria
- C. mRNA
- D. ribosomes**

BIOLOGY >> Bio-Energetics

174. Breaking of terminal phosphate of ATP releases about Kcal of energy?

- A. 6.1
- B. 6.3
- C. 7.1
- D. 7.3**

BIOLOGY >> Reproduction

175. When a female ovulates, in what phase of division is the oocyte?

- A. Anaphase I
- B. Prophase I
- C. Metaphase I
- D. Metaphase II**

BIOLOGY >> Variation and Genetics / Inheritance

176. A diploid cell has two sets of chromosomes, what is the diploid number for a human somatic cell if one human gamete has 23 chromosomes?

- A. 44
- B. 45
- C. 46**
- D. 43

BIOLOGY >> Diversity among Animals

177. Notochord occurs throughout life and all through the length of the body in which of the following?

- A. Hemichordata
- B. Urochordata
- C. Vertebrata
- D. Cephalochordata**

BIOLOGY >> Bio-Energetics

178. In Anaerobic respiration only _____ % of the energy present within the chemical bond of glucose is converted into ATP?

- A. 1
- B. 2**
- C. 3
- D. 4

BIOLOGY >> Prokaryotes

179. A scientist who first reported about microbes is:

- A. Antonie Van Lecuwenhoek
- B. Robert Koch**
- C.. Louis Pasteur
- D. Twort

BIOLOGY >> Prokaryotes

179. A scientist who first reported about microbes is:

- A. Antonie Van Lecuwenhoek
- B. Robert Koch
- C. Louis Pasteur
- D. Twort

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

180. Which type of sensory structures carrying the touch sensations are present in papillae extending into ridges of the fingertips?

- A. Hair end organs
- B. Pacinian corpuscles.
- C. Meissner's Corpuscles**
- D. all of these

ENGLISH. >> Correct use of Subject Verb Agreement

Demonstrate correct use of subject-verb agreement

181. His pants ____ torn during the match.

- A. is
- B. are
- C. were**
- D. was

ENGLISH >> Tenses

Demonstrate control of tenses and sentence structure

182. The sun _____ in the west.

- A. rise
- B. rises**
- C. rose
- D. risen

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

183. Choose the correct sentence.

- A. Who isn't here yet asked Parveen.
- B. "Who isn't here yet?" asked Parveen.**
- C. Who isnt here yet? asked Parveen.
- D. "Who isnt here yet?" asked Parveen.

ENGLISH >> Vocabulary

Comprehend key vocabulary

184. I can't think of a _____ example.

- A. correct
- B. suitable**
- C. answerable
- D. needed

ENGLISH >> Structure of Sentence

Demonstrate control of tenses and sentence structure

185. I _____ him for a long time.

- A. know
- B. have known**
- C. am knowing
- D. knew

ENGLISH >> Correct use of articles and prepositions

Demonstrate correct use of articles and prepositions

186. This book has won _____ Booker prize.

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

ENGLISH >> Mistakes in Sentences or short written texts

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

187. If you lend him a book (A)/ he will lend it (B), to someone else (C) and never you will get it back. (D)

- A. If you lend him a book
- B. he will lend it
- C. to someone else
- D. and never you will get it back.**

ENGLISH >> Mistakes in Sentences or short written texts

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

187. If you lend him a book (A)/ he will lend it (B), to someone else (C) and never you will get it back. (D)

- A. If you lend him a book
- B. he will lend it
- C. to someone else
- D. and never you will get it back.

ENGLISH >> Tenses

Demonstrate control of tenses and sentence structure

188. What is the tense of this question? Did you go to the chemist's on your way home?

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

ENGLISH >> Structure of Sentence

Demonstrate control of tenses and sentence structure

189. When I go swimming. I have to keep my eyes closed underwater.

- A. complex
- B. simple
- C. compound
- D. None

ENGLISH >> Tenses

Demonstrate control of tenses and sentence structure

190. It is a beautiful day today. The birds _____ (sing) in the trees.

- A. sang
- B. sing
- C. are singing
- D. were singing

ENGLISH >> Mistakes in Sentences or short written texts

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

191. Choose the correct spelling of the word:

- A. irresistable
- B. irresistible
- C. iresistible
- D. irresistibile

ENGLISH >> Correct use of articles and prepositions

Demonstrate correct use of articles and prepositions

192. When Asad was a schoolboy, he was crazy _____ cars and kept drawing them in his notebooks.

- A. on
- B. of
- C. about
- D. under

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

193. Choose the correct sentence.

- A. The air was crisp and clear it was a lovely day.
- B. The air was crisp and clear, it was a lovely day.
- C. The air was crisp and clear; it was a Lovely Day.
- D. The air was crisp and clear; it was a lovely day.**

ENGLISH >> Vocabulary

Comprehend key vocabulary

194. genocide:

- A. murder of a family member
- B. extermination of an entire race or nation**
- C. assassination of a king
- D. self-destruction

ENGLISH >> Correct use of articles and prepositions

Demonstrate correct use of articles and prepositions

195. The students walk five kilometers to school, so they need to get up very early _____ the morning.

- A. on
- B. in**
- C. out
- D. of

ENGLISH >> Tenses

Demonstrate control of tenses and sentence structure

196. She _____ two pounds an hour.

- A. earns**
- B. has earned
- C. is earning
- D. earn

ENGLISH >> Vocabulary

Comprehend key vocabulary

197. He was dismissed from the service for his insistent:

- A. alertness
- B. nobility
- C. disobedience**
- D. alliance

ENGLISH >> Tenses

Demonstrate control of tenses and sentence structure

198. Choose the correct tense?

- A. I went to school yesterday.**
- B. I go to school yesterday
- C. I have gone to school yesterday
- D. I come to school yesterday.

ENGLISH >> Mistakes in Sentences or short written texts

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

199. Choose the correct spelling of the word

- A. knowledgeable**
- B. knowledgable
- C. knowlegeable
- D. knowlegable

ENGLISH >> Correct use of articles and prepositions

Demonstrate correct use of articles and prepositions

200. ____ man is mortal.

- A. A
- B. An
- C. The

D. No article

LOGICAL REASONING >> Letter and Symbol Series

Complete the series

201. Which letter lies in the middle of word Quality?

- A. L**
- B. A
- C. U
- D. Y

LOGICAL REASONING >> Course of Action

Statements and Actions

202. Statement There has been an unprecedented increase in the number of successful candidates in this year's School Leaving Certificate Examination. I. The government should make arrangements to increase number of seats of intermediate courses in existing colleges. II. The government should take active steps to open new colleges to accommodate all these successful candidates.

- A. both of them follows**
- B. None of them follows
- C. Only I follows
- D. Only II follows

LOGICAL REASONING >> Cause & Effect

Dependent Causes/ Independent Causes/

203. Statement: Large number of people living in the low-lying areas has been evacuated during the last few days to safer places. The government has rushed in relief supplies to the people living in the affected 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 >> Critical Reasoning

Logical Games

204. What should come next to Confound, Illiterate, Bewilder, ?

- A. Kind
- B. Unlearned**
- C. Normal
- D. Disable

LOGICAL REASONING >> Cause & Effect

Dependent Causes/ Independent Causes/

205. I. Since Amna's baby died at birth, she wanted another immediately. II. Amna abducted the infant and took it out of the hospital.

- 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 REASONING >> Logical Problems

Verbal Classification

206. First step in graphing linear equation is to:

- A. connect two points
- B. extend straight line
- C. identify and plot coordinates**
- D. Both A and B

LOGICAL REASONING >> Critical Reasoning

Logical Games

207. What should come next to save, secure, protect?

- A. Guard**
- B. Lock
- C. Conserve
- D. Humble

LOGICAL REASONING >> Letter and Symbol Series

Complete the series

208. Complete the series A2, B4, C8, D16, E?

- A. 32**
- B. 34
- C. 36
- D. 38

LOGICAL REASONING >> Logical Deduction

Verbal Reasoning

209. Country with the highest muslim population is _____

- A. Pakistan
- B. Malaysia
- C. Indonesia**
- D. Iran

LOGICAL REASONING >> Critical Reasoning

Cause and effect

210. Statements (I) Many people prefer to shop at the big retail chains than the local grocery stores (II) Retail chains offer a discount of more than 25% as compared to local grocery shops.

- A. I is cause and II is effect
- B. II is cause and I is effect**
- C. Both are independent causes
- D. both are effects of independent causes