

PHYSICS >> Thermodynamics

1. Which of the following is equivalent to a temperature -5°C ?

- A. -223K
- B. 223K**
- C. -323K
- D. 323K

PHYSICS >> Rotational and Circular Motion

2. The SI unit of angular acceleration is:

- A. rad/s^2**
- B. rad/s
- C. rad.s
- D. rad.s^2

PHYSICS >> Thermodynamics

3. In Boyle's law, which quantity is constant

- A. P
- B. T**
- C. V
- D. R

PHYSICS >> Waves

4. Under the action of the restoring force:

- A. the speed of the body always increases
- B. the body moves at constant speed
- C. the body always slows down
- D. the body accelerates**

PHYSICS >> Electronics

5. Half wave rectifier uses

- A. one diode**
- B. two diode
- C. three diodes
- D. Four diodes

PHYSICS >> Electro-statistics

6. The value of coulomb constant is:

- A. $9 \times 10^9 \text{Nm}^2$
- B. $9 \times 10^9 \text{Nm}^2 / \text{C}^2$**
- C. $9 \times 10^{-9} \text{Nm}^2 / \text{C}^2$
- D. $9 \times 10^{-9} \text{Nm}^2$

PHYSICS >> Current Electricity

7. An electrical instrument which is used to measure potential difference between two points is called:

- A. Barometer
- B.. Manometer
- C. Galvanometer
- D. Voltmeter**

PHYSICS >> Dawn of Modern Physics

8. Which source is associated with a line emission spectrum:

- A. electric signal
- B. neon street signal**
- C. red traffic light
- D. signal

PHYSICS >> Work and Energy

9. A man standing in a bus and pushing the wall of the bus in direction of motion work done by the man is:

- A. positive
- B. zero**
- C. negative
- D. none of these

PHYSICS >> Atomic spectra

10. Which rays have highest charge:

- A. alpha**
- B. beta
- C. gamma
- D. none of these

PHYSICS >> Waves

11. An oscillation is called simple harmonic motion when:

- A. acceleration is directly proportional to -x**
- B. acceleration is directly proportional to x
- C. acceleration is directly proportional to v
- D. acceleration is inversely proportional to -x

PHYSICS >> Electro-statistics

12. A capacitor stores charge Q at a potential difference ΔV . What happens if the voltage applied to the capacitor by a battery is doubled to $2 \Delta V$?

- A. the capacitance falls to half its initial value, and the charge remains the same
- B. the capacitance and the charge both fall to half their initial values
- C. the capacitance and the charge both double
- D. the capacitance remains the same, and the charge Doubles**

PHYSICS >> Dawn of Modern Physics

13. Photocell is similar to:

- A. photoelectric effect**
- B. Compton effect
- C. photoluminescence
- D. none of these

PHYSICS >> Current Electricity

14. An electric filament bulb can be worked from:

- A. D.C. supply only
- B. A.C. supply only
- C. Battery supply only
- D. All above**

PHYSICS >> Rotational and Circular Motion

15. The number of revolutions in 3π radians is:

- A. 2
- B. $3/2$**
- C. 6
- D. $1/6$

PHYSICS >> Electronics

16. The output voltage of a rectifier is:

- A. smooth
- B. pulsating**
- C. perfectly direct
- D. alternating

PHYSICS >> Electro-statistics

17. Electric intensity at the centre of uniformly distributed charge is:

- A. Zero**
- B. Kq/r^2
- C. q/r^2
- D. q/ϵ_0

PHYSICS >> Work and Energy

18. If the increase in the kinetic energy of a body is 22% , then the increase in the momentum will be:

- A. 0.22
- B. 0.44
- C. 0.1**
- D. 1

PHYSICS >> Electromagnetism

19. What is the radius of circular path, if particle has mass m and charge q :

- A. $r = qb/m$
- B. $r = mv/B$
- C. $r = mv/qB$**
- D. $r = mvr/qB$

PHYSICS >> Waves

20. In SONAR we use:

- A. water waves
- B. sound waves**
- C. microwaves
- D. ultraviolet rays

PHYSICS >> Electromagnetic Induction

21. The coupling coefficient of perfectly coupled coil is:

- A. zero
- B. 1**
- C. more than 1
- D. infinite

PHYSICS. >> Force and Motion

22. Newton's second law states that the rate of change of _____ is equal to external force.

- A. velocity
- B. Mass
- C. momentum
- D. position

PHYSICS >> Nuclear Physics

23. Numbers of neutrons present in a nucleus is given by:

- A. $N = A + Z$
- B. $N = AZ$
- C. $N = A - Z$
- D. $N = Z - A$

PHYSICS >> Waves

24. An air pipe opens at both ends. A stationary wave is produced in second harmonic mode. What is the phase difference between the motion of the particles at the end of the pipe and at the centre of the pipe.

- A. 0 deg
- B. 90 deg
- C. 180 deg
- D. 270 deg

PHYSICS >> Current Electricity

25. PD stands for:

- A. Potential difference
- B. Potential deviation
- C. Power difference
- D. Power dissipated

PHYSICS >> Nuclear Physics

26. Which element is used to absorb gamma radiations:

- A. Co
- B. Cl
- C. Ni
- D. P

PHYSICS >> Electronics

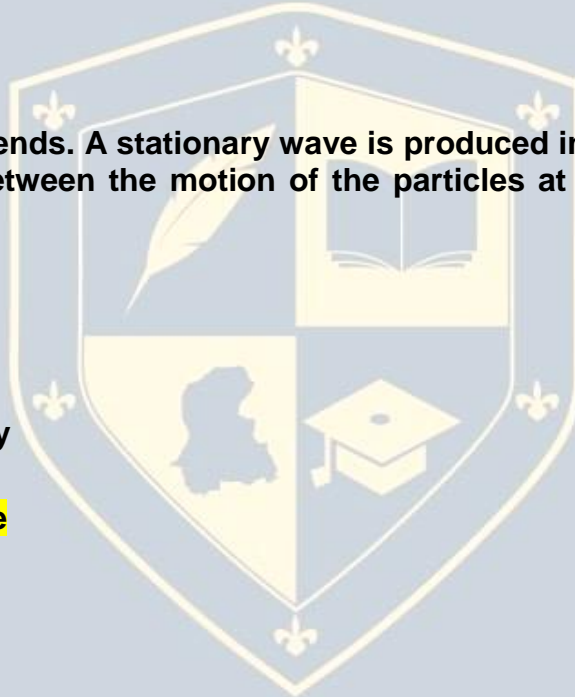
27. Average dc Voltage across the load in terms of V_{max} is:

- A. $0.532 V_{max}$
- B. $0.637 V_{max}$
- C. $0.759 V_{max}$
- D. $0.437 V_{max}$

PHYSICS >> Thermodynamics

28. A gas expands from V_1 to V_2 . The amount of work done is greatest in:

- A. Adiabatic
- B. Isobaric
- C. Isochoric
- D. Isothermal



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PHYSICS >> Electronics

29. Most widely used rectifier is:

- A. half wave rectifier
- B. full wave rectifier
- C. bridge rectifier
- D. none of them

PHYSICS >> Thermodynamics

30. If heat given is 6 kcal and work done is 6 kJ, then internal energy is:

- A. 19.1 kJ
- B. 25.2 kJ
- C. 25kJ
- D. zero

PHYSICS >> Atomic spectra

31. Excited atoms returns to ground state in _____ time.

- A. 1 ns
- B. 2ns
- C. 3ns
- D. all of these

PHYSICS >> Electromagnetic Induction

32. If the peak to peak voltage is 10V, calculate the peak voltage.

- A. 2V
- B. 10V
- C. 4V
- D. 5V

PHYSICS >> Electromagnetism

33. Magnetic field will not produce in case of:

- A. charged positive particles
- B. charged negative particles
- C. neutral particles
- D. All of these

PHYSICS >> Atomic spectra

34. Electron cannot reside inside nucleus is explained by:

- A. Compton effect
- B. Photoelectric effect
- C. Zeeman effect
- D. Uncertainty principle

PHYSICS >> Nuclear Physics

35. What will happen in a time of 7 hours, if a radioactive substance has an average life of 7 hours?

- A. Half of the active nuclei decay
- B. Less half of the active nuclei decay
- C. More than half of the active nuclei decay
- D. All active nuclei decay

PHYSICS >> Dawn of Modern Physics

36. Michelson determined velocity of light by:

- A. studying rotation of moon and sun
- B. using interferometer
- C. using a rotating plane mirror
- D. using an octagonal rotating mirror**

PHYSICS >> Electro-statistics

37. A charge is moving with velocity v , it enters a uniform magnetic field B . The direction of v is perpendicular to B . What is the path of the charge particle inside the magnetic field?

- A. parabolic
- B. circular**
- C. parallel to v
- D. parallel to E

PHYSICS >> Current Electricity

38. Galvanometer is an:

- A. Electromechanical device**
- B. Electrosolar device
- C. Electrothermal device
- D. None of them

PHYSICS >> Work and Energy

39. The body move 10 m along the straight line under the force 5 N, what is the angle between force and displacement:

- A. 0 degree
- B. 30 degree
- C. 45 degree
- D. 60 degree**

PHYSICS >> Electromagnetism

40. Whenever the magnetic flux linked with an electric circuit changes, an emf is induced in the circuit. This is called:

- A. electromagnetic induction**
- B. kirchoff's law
- C. hysteresis loss
- D. Lenz's law

PHYSICS >> Electromagnetic Induction

41. Calculate the frequency if the number of revolutions is 300 and the paired poles are 50.

- A. 15 kHz**
- B. 150 kHz
- C. 1500 kHz
- D. 150 Hz

PHYSICS >> Waves

42. The speed of sound in Rubber, butyl is 1830 m/s. If its density is 1.35 g/cm^3 then its elastic modulus would be:

- A. $4.5 \times 10^6 \text{ Pa}$**
- B. $45 \times 10^6 \text{ Pa}$
- C. $4.5 \times 10^8 \text{ Pa}$
- D. $5 \times 10^6 \text{ Pa}$

PHYSICS. >> Force and Motion

43. Velocity of an object changes from 20 m/s to 50 m/s in 5 sec. What is the acceleration of the object?

- A. 6 m/s
- B. 6 m/s²**
- C. 10 m/s
- D. 10 m/s²

PHYSICS >> Waves

44. When a monochromatic light travels from glass into air, then:

- A. its frequency and wavelength both stays same
- B. its frequency stays same but wavelength increases**
- C. its frequency increases but wavelength stays same
- D. its frequency decreases and wavelength increases

PHYSICS >> Force and Motion

45. For a car which applies brakes from 10 m/s to stop the car in 10 sec its acceleration is:

- A. 1 m/s²
- B. 2m/s²
- C. -1 m/s²**
- D. -2 m/s²

PHYSICS >> Thermodynamics

46. A container is filled with oxygen and helium at the same temperature. The molar mass of oxygen is 32 g/mol and that of helium is 4 g/mol. What is the ratio: average speed of oxygen molecules _____ average speed of helium molecules?

- A. 1 ---- $\sqrt{8}$**
- B. $\sqrt{8}$
- C. 1 ----- 8
- D. 8

PHYSICS >> Dawn of Modern Physics

47. Where does the energy lost by fast moving electron goes :

- A. Appears as photon**
- B. Appears as electron - positron pair
- C. Appears as its K.E.
- D. It vanishes

PHYSICS >> Electro-statistics

48. A capacitor can store its energy in its:

- A. magnetic field
- B. parallel plate
- C. electric field**
- D. coil

PHYSICS >> Electromagnetism

49. Unit of magnetic flux density is:

- A. Tesla
- B. Wb/m²
- C. N/Am
- D. All**

PHYSICS >> Atomic spectra

50. The good absorbers of heat normally are:

- A. poor conductor
- B. good conductor
- C. poor reflector
- D. none of these

PHYSICS >> Nuclear Physics

51. The unstable atom means:

- A. electrons are increasing
- B. protons are increasing
- C. neutrons are increasing
- D. any of these

PHYSICS >> Thermodynamics

52. How much energy is required to raise the temperature of 5.00 kg of lead from 20.0°C to its melting point of 327°C? The specific heat of lead is 128 J/kg °C.

- A. 1.96×10^5 J
- B. 4.04×10^5 J
- C. 1.07×10^5 J
- D. 8.15×10^4 J

PHYSICS >> Electronics

53. In half wave rectification, the output DC voltage is obtained across the load for:

- A. the positive half cycle of input AC
- B. the negative half cycle of input AC
- C. the positive and negative half cycles of input AC
- D. Either positive or negative half cycle of input AC

PHYSICS >> Rotational and Circular Motion

54. The angular acceleration has units:

- A. rad/sec
- B. sec/rad
- C. sec^2
- D. none of these

PHYSICS >> Waves

55. What is the wavelength of the wave if the phase angle between two points of the medium is $3\pi/4$ and they are separated through a distance of 3 cm?

- A. 8 cm
- B. 9 cm
- C. 1 cm
- D. 12 cm

PHYSICS >> Nuclear Physics

56. A particle radioisotope has a half life of 5 days. In 15 days the probability of decay in percentage will be:

- A. 67 %
- B. 87.5 %
- C. 82.5 %
- D. 77 %

CHEMISTRY >> Atomic Structure

57. When an electron remains between orbit, its momentum is:

- A. dequantized
- B. quantized**
- C. emitted
- D. changes always

CHEMISTRY >> Chemical Equilibrium

58. The conversion of Nitrogen to ammonia or nitrogenous compounds is called:

- A. Nitrification
- B. Nitrogen Fixation**
- C. Denitrification
- D. Assimilation

CHEMISTRY >> Fundamental Principles of Organic Chemistry

59. Compounds having C and H atoms and their derivatives are called as _____?

- A. Inorganic compounds
- B. Organic compounds**
- C. Biochemical compounds
- D. Carbohydrates

CHEMISTRY >> Liquids

60. Which will evaporate faster; hot water in cup or cold water in a cup ?

- A. Cold water
- B. Hot water**
- C. Both evaporate at the same rate
- D. Both evaporate slowly

CHEMISTRY >> Alcohol and Phenols

61. The compounds which are formed by the replacement of one of the H of water by a alkyl group are called as _____?

- A. Ethers
- B. Phenols
- C. Alcohols**
- D. Carboxylic acids

CHEMISTRY >> Reaction Kinetics

62. Specific Rate constant is also known as:

- A. Time Constant
- B. relative rate constant
- C. Instantaneous rate constant
- D. velocity constant**

CHEMISTRY >> Introduction to Fundamental Concepts of Chemistry

63. The negative ions having group of atoms is/are:

- A. OH^-
- B. CO_3^{2-}
- C. $\text{Cr}_2\text{O}_7^{2-}$
- D. all of these**

CHEMISTRY >> Chemistry of Hydrocarbons

64. Alkanes are called as _____?

- A. Olefines
- B. Paraffins**
- C. Reactive
- D. All of these

CHEMISTRY >> Alkyl Halides

65. In which phase SN_2 reactions are favored?

- A. Solid
- B. Liquid
- C. Gas**
- D. All of these

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

66. The reactions that needs energy are called as ____?

- A. Endothermic reactions**
- B. Exothermic reactions
- C. Exergonic reactions
- D. Heat releasing reactions

CHEMISTRY >> Solids

67. grey and white tin co-exist at temperature:

- A. 128 C
- B. 13.2 C**
- C. 32-38 C
- D. 95.5 C

CHEMISTRY >> Alcohol and Phenols

68. The solubility of alcohols is due to:

- A. dipole moment
- B. covalent bonds
- C. hydrogen bonding**
- D. electronegativity

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

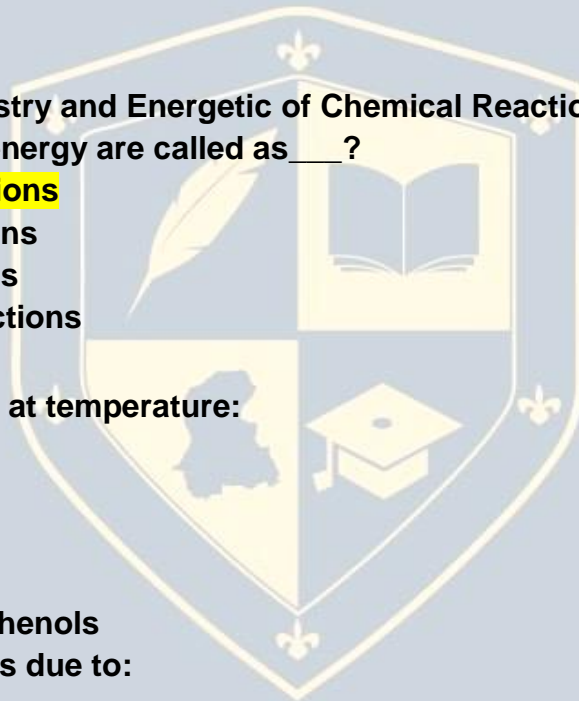
69. The condition of a system is called as ____?

- A. Reaction conditions
- B. Concentration
- C. State of system**
- D. All of these

CHEMISTRY >> Chemical Equilibrium

70. Heat of solution for NaCl is:

- A. High
- B. low
- C. Zero**
- D. One



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CHEMISTRY >> Alkyl Halides

71. SN_1 reactions are favored by which of the following reactions?

- A. Water
- B. Benzene
- C. Carbon Tetrachloride
- D. Carbon disulphide

CHEMISTRY >> Gases

72. One atmosphere is the force of _____ long column of mercury on an area of 1cm^2 at c.

- A. 76cm
- B. 76mm
- C. 76dm
- D. 76pm

CHEMISTRY >> Carboxylic Acids

73. Carboxylic acids form dimer due to _____?

- A. Small sizes
- B. Polarity of C-O bond
- C. H-bonding
- D. Dipole-Dipole interactions

CHEMISTRY >> Fundamental Principles of Organic Chemistry

74. Which of the following compound is a Alcohol?

- A. $\text{CH}_3\text{-O-CH}_3$
- B. $\text{CH}_3\text{-OH}$
- C. CH_3COOH
- D. CH_3COCH_3

CHEMISTRY >> Fundamental Principles of Organic Chemistry

75. Which is not a heterocyclic compound?

- A. Furan
- B. Pyrrole
- C. Pyridine
- D. Ethane

CHEMISTRY >> Carboxylic Acids

76. Acetic acid is also named as _____?

- A. Propanoic acid
- B. Butanoic acid
- C. Ethanoic acid
- D. Methanoic acid

CHEMISTRY >> Macromolecules

77. Enzymes are _____ in nature.

- A. Proteins
- B. Carbohydrates
- C. Lipids
- D. Nucleic acid

CHEMISTRY >> Fundamental Principles of Organic Chemistry

78. Coal tar contains many organic compounds that can be separated by_____?

- A. Destructive distillation
- B. Fractional distillation**
- C. Vacuum distillation
- D. Partial distillation

CHEMISTRY >> Liquids

79. In a pressure cooker, boiling point of water is_____?

- A. Raised than the normal**
- B. Lower than the normal
- C. Lower than the freezing point
- D. All of these

CHEMISTRY >> Solids

80. Atoms arranged in regular and repeating manner is the characteristic of:

- A. ionic solids
- B. molecular solids
- C. crystalline solids**
- D. covalent solids

CHEMISTRY >> Solids

81. The shape of crystal in which it usually grows is called its:

- A. size
- B. capacity
- C. habit**
- D. property

CHEMISTRY >> Macromolecules

82. Protein component of enzyme is called_____.

- A. Coenzyme
- B. Cofactor
- C. Apo-enzyme**
- D. Prosthetic group

CHEMISTRY >> S and P Block elements

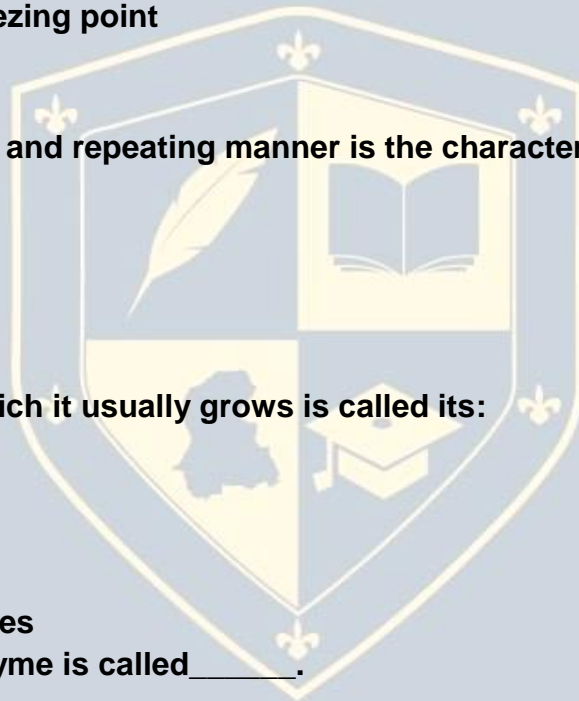
83. Find the amphoteric oxide:

- A. CaO_2
- B. CO_2
- C. SnO_2**
- D. SiO_2

CHEMISTRY >> Aldehydes and ketones

84. Before giving condensation product, ammonia and its derivatives produces _____when react with carbonyls?

- A. Alcohols
- B. Carboxyl alcohol
- C. Amino alcohol**
- D. None of these



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CHEMISTRY >> Transition Elements

85. Which one of the following has highest number of unpaired electrons?

- A. Fe^{2+}
- B. Mn^{2+}**
- C. Cr^{5+}
- D. Zn^{2+}

CHEMISTRY >> Chemical Bonding

86. A _____ is the force, which holds together two or more atoms or ions to form a large variety of compounds.

- A. Ionic bond
- B. chemical bond**
- C. covalent bond
- D. metallic bond

CHEMISTRY >> Chemistry of Hydrocarbons

87. Polymerization of ethene produces which of the following polymer?

- A. Polyvinyl
- B. Polyethyl
- C. Polyethylene**
- D. Polyethoxy

CHEMISTRY >> Carboxylic Acids

88. Which of the following catalyst is used for the preparation of acidic anhydrides ?

- A. $\text{K}_2\text{Cr}_2\text{O}_7$
- B. P_2O_5**
- C. $\text{H}^+/\text{H}_2\text{O}$
- D. H_2SO_4

CHEMISTRY >> Alcohol and Phenols

89. Which of the following alcohol give iodoform test?

- A. Propanol
- B. Methanol
- C. Ethanol**
- D. Butanol

CHEMISTRY >> Reaction Kinetics

90. Zero order reactions do not depend upon concentration of

- A. products
- B. reactants**
- C. Ions
- D. radicals

CHEMISTRY >> Alkyl Halides

91. Which of the following is true about the kinetics of bimolecular elimination reactions?

- A. 1st order reaction
- B. 2nd order reaction**
- C. Zero order reaction
- D. 3rd order reaction

CHEMISTRY >> Alkyl Halides

92. The products of SN_1 reactions are formed with _____?

- A. Retention in configuration
- B. Inversion in Configuration
- C. 50% retention and 50% inversion in configuration
- D. All of these

CHEMISTRY >> Reaction Kinetics

93. Rate determining step is also called

- A. Critical step
- B. Rate Limiting step
- C. Final Step
- D. None of these

CHEMISTRY >> Chemistry of Hydrocarbons

94. Which of the following product is obtained from the Chlorination of acetylene?

- A. 1,2,3,4-tetrachloroethylene
- B. 1,1,2,2-tetrachloroethylene
- C. 1,1,2,2-Tetrachloroethane
- D. 1,2,3,4-Tetrachloroethylene

CHEMISTRY >> Introduction to Fundamental Concepts of Chemistry

95. The atoms of hemoglobin is heavier than H-atoms

- A. 67,000 times
- B. 68,000 times
- C. 65,000 times
- D. 69,000 times

CHEMISTRY >> Chemical Bonding

96. In chemical combination of H-atom with sodium. It gains an electron but in case of HF, H-atom

- A. gains 2 e-
- B. lose 1e-
- C. lose 2e-
- D. gain 2e-

CHEMISTRY >> Electrochemistry

97. Electrolysis of bauxite is done by

- A. Haber's Process
- B. Born Haber cycle
- C. Ion Exchange Method
- D. Hall-Heroult Process

CHEMISTRY >> Electrochemistry

98. Electrolysis is carried out in

- A. A beaker
- B. Flask
- C. Evaporating Dish
- D. Electrolytic Cell

CHEMISTRY >> Thermochemistry and Energetic of Chemical Reactions

99. For the reaction; $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$ the change in enthalpy is called as _____?

- A. Enthalpy of formation
- B. Enthalpy of neutralization**
- C. Enthalpy of Sublimation
- D. Enthalpy of reaction

CHEMISTRY >> Chemical Equilibrium

100. Shifting the position of equilibrium can be used to Increase

- A. Temperature
- B. pressure
- C. yield of reaction**
- D. All of these

CHEMISTRY >> Liquids

101. Which of the following is directional bond?

- A. Ionic bond
- B. Metallic bond
- C. H-bond**
- D. None of these

CHEMISTRY >> Alcohol and Phenols

102. Dehydration of alcohols at low temperature and high acid concentration results in?

- A. Alkene
- B. Ether**
- C. Carboxylic acid
- D. Aldehydes

CHEMISTRY >> S and P Block elements

103. Ammonia may be prepared by heating ammonium chloride with

- A. Water
- B. NaCl
- C. Aqueous sodium hydroxide**
- D. H_2SO_4

CHEMISTRY >> Solids

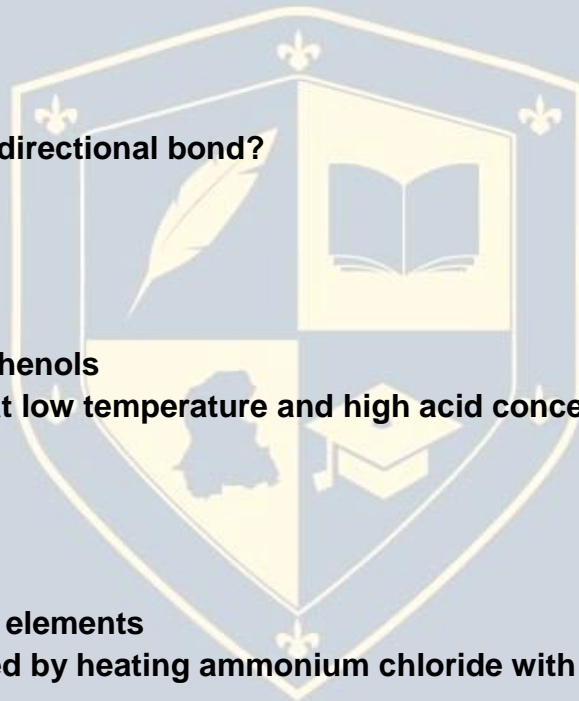
104. The type of hybridization in diamond is:

- A. spherical
- B. sp^2
- C. sp^3**
- D. sp-sp

CHEMISTRY >> Alkyl Halides

105. First step in the SN_1 reaction is _____?

- A. Dehydration
- B. Protonation
- C. Ionization**
- D. Attack of nucleophile and departure of leaving group



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CHEMISTRY >> Carboxylic Acids

106. Which type of carboxylic acid is produced from the hydrolysis of nitriles?

- A. Beta-hydroxy carboxylic acids
- B. Acids having one carbon more than the starting material**
- C. Acids having one carbon less than the starting material
- D. Alpha-hydroxy acids

CHEMISTRY >> Chemistry of Hydrocarbons

107. What are Kekule structures?

- A. The two isomers of benzene
- B. The isomers of arenes
- C. The two-resonance structure of benzene**
- D. The two-resonance structure of phenols

CHEMISTRY >> Liquids

108. Which one of the following H-bond is strong?

- A. O-H
- B. N-H
- C. F-H**
- D. Cl-H

CHEMISTRY >> Aldehydes and ketones

109. During preparation of Acetaldehyde from ethanol in laboratory, why acetaldehyde is distilled off quickly after formation?

- A. To avoid decomposition of product
- B. To avoid reduction
- C. To avoid further oxidation to acetic acid**
- D. None of these

CHEMISTRY >> Introduction to Fundamental Concepts of Chemistry

110. The peaks forms in a mass spectrograph shows number of _____ of an element

- A. electrons
- B. isotopes**
- C. protons
- D. neutrons

CHEMISTRY >> Fundamental Principles of Organic Chemistry

111. Carbon is:

- A. trivalent
- B. Tetravalent**
- C. Monovalent
- D. Pentavalent

CHEMISTRY >> Alcohol and Phenols

112. Phenol is _____ liquid ?

- A. Dense
- B. Hard
- C. Deliquescent**
- D. intermittent

BIOLOGY >> Cell Structure and Function

113. Which Of the following is not the characteristic of mitochondria?

- A. It contains F1 particles
- B. It is involved in the synthesis of protein
- C. It is a self replicating organelle
- D. Number of mitochondria is constant**

BIOLOGY >> Biological Molecules Enzymes

114. Which one of the following is an organic compound?

- A. Carbon dioxide
- B. water
- C. lipid**
- D. HCL

BIOLOGY >> Diversity among Animals

115. All of the following are coelomates except which?

- A. Deuterostomes
- B. Hemichordates
- C. Proterosomes
- D. Aschelminthes**

BIOLOGY. >> Reproduction

116. Which one of the following is most likely to occur in a boy during puberty?

- A. He produces eggs
- B. His shoulders broaden.**
- C. The colour of his eyes change.
- D. None of these

BIOLOGY >> Enzymes

117. Bond specificity of an enzyme is also known as?

- A. relative specificity**
- B. size specificity
- C. group specificity
- D. none of these

BIOLOGY >> Diversity among Animals

118. Centipedes belong to class _____ of arthropoda.

- A. Arachnida
- B. Insecta
- C. Cephalopoda
- D. Myriapoda

BIOLOGY >> Prokaryotes

119. Which of the following has a chain-like arrangement?

- A. Streptobacillus
- B. Streptococci
- C. both a and b**
- D. none of these

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

120. The brain is protected by:

- A. sacrum
- B. Cranium**
- C. humerus
- D. scapula

BIOLOGY >> Support and Movement

121. Sperms of liverworts, mosses, ferns move towards archegonia, in response to nucleic acid released by the ovum. This is an example of?

- A. Chemotropic movement
- B. Chemonastic movement
- C. Haptonastic movement
- D. Chemotactic movement**

BIOLOGY >> Enzymes

122. In enzymatic mechanism, the substrate bind to enzyme active site to produce?

- A. reactants
- B. enzymes
- C. products**
- D. all of these

BIOLOGY >> Evolution

123. The random change in allele frequencies is known as?

- A. genetic drift**
- B. diversity
- C. linkage
- D. all of these

BIOLOGY >> Bio-Energetics

124. Which of the following molecules is reduced?

- A. NAD⁺
- B. FAD
- C. O₂
- D. NADPH**

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

125. The main target in the prevention of lung cancer is eliminating the

- A. Tobacco smoking**
- B. chemicals
- C. Pollutants
- D. Mutagens

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

126. What is a Provirus?

- A. a. free virus
- B. free DNA
- C. primitive virus
- D. integrated viral genome**

BIOLOGY >> Reproduction

127. What is critical in photoperiodism?

- A. Length of light period
- B. Length of dark period**
- C. both a and b
- D. none of these

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

128. Choose the region/s of spinal cord:

- A. cervical
- B. thoracic
- C. lumbar
- D. All of these**

BIOLOGY >> Variation and Genetics / Inheritance

129. The alternative forms of same gene is called which of the following?

- A. locus
- B. gene
- C. allele**
- D. phenotype

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

130. The loss of liquid via the hydathodes is called:

- A. ascent of sap
- B. plasmolysis
- C. imbibition
- D. guttation**

BIOLOGY >> Evolution

131. The effect of genetic drift increases as the population size?

- A. increases
- B. decreased**
- C. remains same
- D. none of these

BIOLOGY >> Variation and Genetics / Inheritance

132. Which of the following scenarios gives both sons and daughters the SAME probability of being born with a disease?

- A. The disease is X-linked dominant. A heterozygous mother is crossed with a healthy father.
- B. The disease is X-linked dominant. A heterozygous mother is crossed with a father with the disease.
- C. The disease is X-linked recessive. A mother with the disease is crossed with a healthy father.
- D. The disease is X-linked recessive. A heterozygous mother is crossed with a healthy father.**

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

133. _____ are among smallest known virus

- A. picornavirus
- B. parvoviruses**
- C. herpes virus
- D. rotavirus

BIOLOGY >> Prokaryotes

134. All of the following are true about bacilli bacteria except

- A. All bacilli are gram positive
- B. All bacilli are aerobic
- C. All bacilli are rod-shaped
- D. both a and b**

BIOLOGY >> Bio-Energetics

135. What does NADPH₂ provide during photosynthesis?

- A. energized electron**
- B. energy
- C. uncharged electron
- D. all of these

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

136. What type of viruses are the paramyxoviruses?

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

BIOLOGY >> Support and Movement

137. The muscle contraction depends on:

- A. Nerve impulse
- B. energy
- C. calcium
- D. All of these**

BIOLOGY >> Enzymes

138. What is meant by optimum temperature of an enzyme?

- A. The temperature at which the primary structure of an enzyme remains intact.
- B. The temperature at which an enzyme makes the maximum amount of product.**
- C. The temperature at which an enzyme may be more affected by an inhibitor.
- D. The temperature at which an enzyme makes the least amount of product.

BIOLOGY >> Biological Molecules Enzymes

139. In the process of esterification OH is derived from?

- A. ether
- B. alcohol**
- C. water
- D. both a and b

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

140. Each type of the principal type of sensation that we can experience e.g pain touch sight sound and so for this called a modality of?

- A. regulation
- B. coordination
- C. control
- D. sensation**

BIOLOGY >> Diversity among Animals

141. Removal of a parasite from the body of the host is called:

- A. Sterilization
- B. Disinfection
- C. Disinfestation**
- D. None of the above

BIOLOGY >> Support and Movement

142. S-band locomotion is characteristically seen in which of the following?

- A. Bony fish
- B. Fish like mammals
- C. Cartilaginous fish**
- D. all of these

BIOLOGY >> Reproduction

143. Which of the following is an ovoviviparous organism?

- A. reptiles
- B. mammals
- C. frog
- D. Duckbill platypus**

BIOLOGY >> Enzymes

144. The raw material for coenzymes are?

- A. proteins
- B. vitamins**
- C. lipids
- D. both a and b

BIOLOGY >> Evolution

145. Darwins theory mainly focuses on:

- A. origin of life
- B. how organs extinct
- C. how new species arise**
- D. how organisms form

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

146. The T-lymphocytes and B-lymphocytes are the major cells of the:

- A. thymus
- B. lymph nodes**
- C. adrenal glands
- D. lymphatic vessels

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

147. Which part of the brain connects the cerebrum with the spinal cord?

- A. Forebrain
- B. Cerebrum
- C. cerebellum
- D. Brainstem**



**SINDH ACADEMY
UMERKOT**

BIOLOGY. >> Evolution

148. Carolus Linnaeus was believer of which of the following?

- A. special creation**
- B. natural selection
- C. catastrophism
- D. Inheritance of acquired characters

BIOLOGY >> Enzymes

149. Water soluble vitamins contain high proportion of which of the following?

- A. electronegative oxygen
- B. nitrogen atoms
- C. sulfur
- D. both a and b**

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

150. In which year was the AIDs virus named?

- A. 1986**
- B. 1980
- C. 1992
- D. 1970

BIOLOGY >> Prokaryotes

151. It is suspected that this cell is prokaryotic. The presence of which of these cell structures would confirm that the cell is prokaryotic?

- A. Cytoplasm
- B. ribosomes
- C. flagella
- D. Peptidoglycan cell wall**

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

152. What is the human breathing rate during hard physical work?

- A. 10 to 15 times per minute
- B. 10 to 20 times per minute
- C. 80 to 120 times per minute
- D. 30-40 times per minute**

BIOLOGY >> Diversity among Animals

153. Flame cells in Planaria constitute the:

- A. Digestive system
- B. Reproductive system
- C. Respiratory system
- D. Excretory system**

BIOLOGY >> Bio-Energetics

154. In which of the following component of the body, lactic acid fermentation takes place?

- A. Heart
- B. Muscles**
- C. Liver
- D. Brain

BIOLOGY >> Biological Molecules Enzymes

155. Lipids have great functional significance in the human body. What is the main functions of the lipids?

- A. energy source
- B.. structure of membrane
- C. mechanical protection
- D. all of these**

BIOLOGY >> Cell Structure and Function

156. When a dye is injected into a plant cell, it will enter the adjacent cell via?

- A. tight junction
- B. microtubule
- C. desmosomes
- D. plasmodesmata**

BIOLOGY >> Cell Structure and Function

157. The isolation of different cellular components to determine their chemical composition can be achieved by?

- A. cell differentiation
- B. chromatography
- C cell fractionation**
- D. all of these

BIOLOGY. >> Support and Movement

158. The fibrous connective tissue which attaches muscle to bone is called:

- A. Tendon**
- B. Ligament
- C. reticular tissue
- D. Cartilage

BIOLOGY >> Diversity among Animals

159. Exoskeleton of coelenterates is made up of which of the following material?

- A. Calcium**
- B. Silica
- C. chitin
- D. lignin

BIOLOGY >> Variation and Genetics / Inheritance

160. A pure breeding tall plant was crossed to dwarf plant. What would be probability of "Tt" genotype in F₂?

- A. 0.25
- B. 0.5**
- C. 0.75
- D. 1

BIOLOGY >> Reproduction

161. Apomixis is a form of which of the following?

- A. Parthenocarpy
- B. Parthenogenesis**
- C. vernalization
- D. all of these

BIOLOGY >> Variation and Genetics / Inheritance

162. The 23rd pair of chromosomes in man is:

- A. Polymorphic
- B. Heteromorphich**
- C. Homomorphich
- D. Automorphich

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

163. Deficiency in the production of parathormone causes which of the following disease?

- A. brittle bones
- B. soft bones
- C. rickets
- D. tetany**

BIOLOGY >> Diversity among Animals

164. The single main opening of the sponge cavity is known as?

- A. Ostia
- B. Osculum**
- C. Spongocoel
- D. both a and b

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

165. The opening of larynx is called

- A. glottis**
- B. voice box
- C. epiglottis
- D. both B and C

BIOLOGY >> Bio-Energetics

166. The pay-off phase of glycolysis conserved the:

- A. molecules of glucose
- B. molecules of fructose
- C. ATP**
- D. water

BIOLOGY >> Variation and Genetics / Inheritance

167. Genes for colour blindness form _____ linkage group on human _____ chromosome.

- A. 2, Y
- B. 1, Y
- C. 2, X
- D. 1, X**

BIOLOGY >> Support and Movement

168. The joint formed by humerus with radius and ulna is an example of:

- A. ball and socket joint
- B. hinge joint**
- C. multistage joint
- D. All of these

BIOLOGY >> Bio-Energetics

169. Van Niel hypothesis about the production of oxygen during photosynthesis was based on the study and investigations on?

- A. Bacteria**
- B. Algae
- C. Protonema
- D. Cyanobacteria

BIOLOGY >> Diversity among Animals

170. The canal system in sponges develops due to which of the following?

- A. Porous walls
- B. Gastrovascular system
- C. Reproduction
- D. Folding of inner walls**

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

171. The composition of the white matter of spinal cord is:

- A. myelinated dendrite
- B. non-myelinated dendrite
- C. non-myelinated axon
- D. myelinated axon**

BIOLOGY >> Diversity among Animals

172. Which of the following is an incorrect difference between a shark and a whale?

- A. A shark's heart has only one chamber whereas a whale's heart has two chambers.**
- B. Shark gills are not covered by operculum whereas those in a whale are.
- C. Sharks do not possess a swim bladder whereas whales do.
- D. Sharks have placoid scales on their skin whereas whales don't.

BIOLOGY >> Cell Structure and Function

173. Which of the following is synthesized by free floating ribosomes of cytoplasm in humans?

- A. DNA polymerase
- B. salivary amylase
- C. pancreatic amylase
- D. DNA helicase**

BIOLOGY >> Evolution

174. The experiment that simulated conditions thought to be present on the early earth

- A. Hershey Chase experiment
- B. Geiger Marsden experiment
- C. Schiehallion experiment
- D. Miller-Urey experiment**

BIOLOGY >> Enzymes

175. The optimum pH for enzyme arginase is?

- A. 9
- B. 9.3
- C. 9.7**
- D. 10

BIOLOGY >> Biological Molecules Enzymes

176. Saponification number describes_____

- A. Unsaturation in fat
- B. Average molecular weight of fatty acid**
- C. Acetyl number
- D. Acid number

BIOLOGY >> Reproduction

177. The uterine tube opens into:

- A. uterus**
- B. ovary
- C. cervix
- D. oviduct

BIOLOGY >> Coordination and Control/ Nervous and Chemical Coordination

178. Abscisic acid promotes flowering in short day plants and inhibits in long day plants, which of the following is antagonistic to abscisic acid in terms of flowering?

- A. gibberellins**
- B. cytokinins
- C. auxins
- D. ethane

BIOLOGY. >> Enzymes

179. If the non-protein part of Enzyme is covalently bonded to the enzyme it is known as?

- A. coenzyme
- B. cofactor
- C. prosthetic group**
- D. activator

BIOLOGY >> Cell Structure and Function

180. The process of self-digestion of selective non functional organelle by cells through the actions of enzymes originating from the cell is called?

- A. pinocytosis
- B. endocytosis
- C. autophagy**
- D. cytotoxicity

ENGLISH >> Structure of Sentence

Demonstrate control of tenses and sentence structure

181. He _____ out five minutes ago.

- A. goes
- B. has gone
- C. had gone
- D. went**

ENGLISH. >> Correct use of articles and prepositions

Demonstrate correct use of articles and prepositions

182. I borrowed ____ pencil from your pile of pencils and pens.

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

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. Dr Hussain works at city hospital in gulberg.
- B. Dr Hussain works at City Hospital in Gulberg?
- C. Dr Hussain works at City Hospital in Gulberg.
- D. Dr Hussain works at city hospital in Gulberg.

ENGLISH >> Tenses

Demonstrate control of tenses and sentence structure

184. The horse _____ (gallop) across the fields.

- A. gallop
- B. galloping
- C. gallops
- D. were galloping

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

185. Had you worked hard (A)/ from the beginning (B)/ of the term (C)/ you will have passed. (D)

- A. Had you worked hard
- B. from the beginning
- C. of the term
- D. you will have passed.

ENGLISH >> Vocabulary

Comprehend key vocabulary

186. He is so shy. I haven't seen him _____

- A. talking
- B. jumping
- C. limping
- D. angry

ENGLISH >> Correct use of Subject Verb Agreement

Demonstrate correct use of subject-verb agreement

187. We _____ to school every day

A. goes

B. go

C. went

D. gone

ENGLISH >> Correct use of articles and prepositions

Demonstrate correct use of articles and prepositions

188. We still haven't come _____ with an interesting theme for the advertising campaign.

A. on

B. in

C. up

D. down

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

189. Choose the correct sentence.

A. After we'd closed the door we sat down to read the newspaper.

B. After we'd closed the door, we sat down to read the newspaper.

C. After w'ed closed the door, we sat down to read the newspaper.

D. After we'd closed the door, we sat down to read the Newspaper.

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

190. Even if the doctor (A)/ put in his best efforts, he (B)/ could not succeed in (C)/ saving the patient. (D)

A. Even if the doctor

B. put in his best efforts, he

C. could not succeed in

D. saving the patient.

ENGLISH >> Structure of Sentence

Demonstrate control of tenses and sentence structure

191. I have lost my way.

A. Declarative

B. Imperative

C. Interrogative

D. Exclamatory

ENGLISH >> Correct use of Subject Verb Agreement

Demonstrate correct use of subject-verb agreement

192. I _____ Karachi by the next week.

A. shall have visited

B. shall be visited

C. shall has visit

D. none

ENGLISH >> Vocabulary

Comprehend key vocabulary

193. innumerable

A. limited

B. weary

C. countless

D. harmless

ENGLISH >> Mistakes in Sentences or short written texts

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

194. Choose the correct spelling of the word

A. except

B. excapt

C. excipt

D. ecsept

ENGLISH >> Correct use of articles and prepositions

Demonstrate correct use of articles and prepositions

195. Danial is playing tennis _____ Sunday.

A. in

B. on

C. at

D. of

ENGLISH >> Tenses

Demonstrate control of tenses and sentence structure

196. The police _____ (leave)no stone unturned to trace the culprits.

A. left

B. leave

C. leaves

D. leaving

ENGLISH >> Vocabulary

Comprehend key vocabulary

197. hunch

- A. hump
- B. stretch
- C. straighten
- D. curiosity

ENGLISH >> Correct use of Subject Verb Agreement

Demonstrate correct use of subject-verb agreement

198. Here ____ the tomb of Allamalqbal.

- A. lies
- B. lying
- C. lied
- D. lay

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. possession
- B. possession
- C. posesion
- D. posession

ENGLISH >> Tenses

Demonstrate control of tenses and sentence structure

200. Choose the present indefinite tense form of the sentence. "He had been sleeping."

- A. He has been sleeping.
- B. He had slept.
- C. He has slept.
- D. He sleeps.

LOGICAL REASONING >> Critical Reasoning

Statements and Conclusions

201. Statements No rings are bangles. All gold rings. Conclusions (I) No bangles are gold. (II) Some rings are gold.

- A. Only conclusion (I) follows
- B. Only conclusion (II) follows
- C. Both conclusions follow
- D. Both of them do not follow

LOGICAL REASONING >> Letter and Symbol Series

Complete the series

202. Which letter comes before G and after E?

- A. B
- B. C
- C. F**
- D. D

LOGICAL REASONING >> Critical Reasoning

Essential parts

203. What should come next to it infirmary

- A. surgery
- B. disease
- C. patient**
- D. receptionist

LOGICAL REASONING >> Logical Problems

Verbal Classification

204. In which year Pakistan and China joint Venture of JF7 Thunder Aircraft started?

- A. 1997
- B. 2003**
- C. 1999
- D. Both A and B

LOGICAL REASONING >> Logical Problems

Making Judgements

205. A book always has

- A. Pages**
- B. Contents
- C. Chapter
- D. Images

LOGICAL REASONING >> Cause & Effect

Verbal reasoning

206. Statements (I) There is sharp decline in the production of oil seeds this year. (II) The Government has decided to increase the import quantum of edible oil.

- A. Statement I is the cause and II is its effect
- B. Statement II is the cause and I is its effect
- C. Both statements are of independent causes
- D. Both statements are the effects of the independent causes**

LOGICAL REASONING >> Letter and Symbol Series

Identify the number that follows the series.

207. Look at this series: 53, 53, 40, 40, 27, 27, ... What number should come next?

- A. 12
- B. 14**
- C. 27
- D. 53

LOGICAL REASONING >> Logical Deduction

Verbal Reasoning

208. Language with the most alphabets is _____

- A. French
- B. Chinese**
- C. Portuguese
- D. Urdu

LOGICAL REASONING >> Logical Problems

Answer on Passage

209. Children are in pursuit of a dog whose leash has broken. James is directly behind the dog. Ruby is behind James. Rachel is behind Ruby. Max is ahead of the dog walking down the street in the opposite direction. As the children and dog pass, Max turns around and joins the pursuit. He runs in behind Ruby. James runs faster and is alongside the dog on the left. Ruby runs faster and is alongside the dog on the right. Which child is directly behind the dog?

- A. James
- B. Ruby
- C. Rachel
- D. Max**

LOGICAL REASONING >> Cause & Effect

Dependent Causes/ Independent Causes/

210. Statement: Most of the steel producing companies in the country have made considerable profit during the last financial year. Many Asian countries have been importing huge quantities of steel from Pakistan

- 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