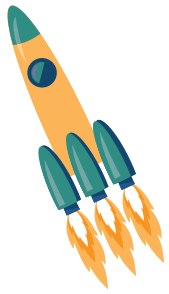
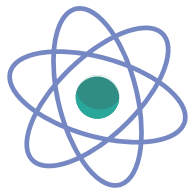
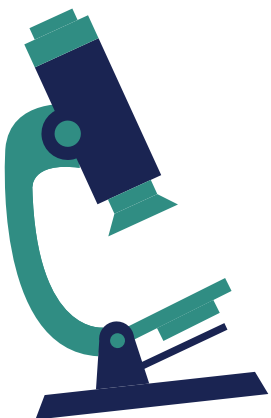


QUIZ SCIENCE 2026-27



11 - 12
GROUP



Group 11-12

- 1 Which of the following is NOT a fundamental (base) quantity in the SI system?
a. Weight b. Length
c. Mass d. Time
- 2 The SI unit of luminous intensity is the _____.
a. mole b. candela
c. kelvin d. ampere
- 3 The dimensions of force are _____.
a. $[MLT^{-1}]$ b. $[ML^2T^{-2}]$
c. $[MLT^{-2}]$ d. $[ML^{-1}T^{-2}]$
- 4 The dimensions of work (or energy) are _____.
a. $[MLT^{-2}]$ b. $[ML^2T^{-1}]$
c. $[MLT^{-1}]$ d. $[ML^2T^{-2}]$
- 5 Which pair has the same dimensions?
a. Work and torque b. Work and power
c. Force and momentum d. Pressure and force
- 6 A derived unit among the following is the _____.
a. metre b. newton
c. kilogram d. second
- 7 The number of significant figures in 0.00420 is _____.
a. two b. four
c. three d. five
- 8 The dimensions of pressure are _____.
a. $[MLT^{-2}]$ b. $[ML^2T^{-2}]$
c. $[ML^{-2}T^{-2}]$ d. $[ML^{-1}T^{-2}]$
- 9 The SI unit of the amount of substance is the _____.
a. mole b. candela
c. kelvin d. ampere
- 10 Which of the following is a dimensionless quantity?
a. Force b. Strain
c. Pressure d. Density
- 11 One light year is a unit of _____.
a. time b. speed
c. distance d. energy
- 12 The dimensions of power are _____.
a. $[ML^2T^{-2}]$ b. $[MLT^{-2}]$
c. $[ML^2T^{-1}]$ d. $[ML^2T^{-3}]$
- 13 The least count of a standard Vernier calliper is usually _____.
a. 0.1 mm b. 0.01 mm
c. 1 mm d. 0.5 mm
- 14 The dimensions of the gravitational constant G are _____.
a. $[MLT^{-2}]$ b. $[M^{-1}L^3T^{-2}]$
c. $[ML^2T^{-2}]$ d. $[M^{-1}L^2T^{-2}]$
- 15 Which of the following is a vector quantity?
a. Speed b. Work
c. Momentum d. Energy
- 16 Which of the following is a scalar quantity?
a. Velocity b. Displacement
c. Acceleration d. Temperature
- 17 The dot (scalar) product of two perpendicular vectors is _____.
a. zero b. maximum
c. negative d. unity
- 18 The cross (vector) product of two parallel vectors is _____.
a. maximum b. zero
c. unity d. negative
- 19 If the magnitudes of the dot and cross products of two vectors are equal, the angle between them is _____.
a. 0° b. 30°
c. 45° d. 90°
- 20 The result of the cross product of two vectors is a _____.
a. scalar b. unit vector only
c. zero always d. vector
- 21 The result of the dot product of two vectors is a _____.
a. scalar b. vector
c. unit vector d. matrix
- 22 The maximum number of rectangular components a vector can be resolved into is _____.
a. one b. three
c. two d. infinite
- 23 If both rectangular components of a vector are negative, the vector lies in the _____.
a. 1st quadrant b. 2nd quadrant
c. 3rd quadrant d. 4th quadrant
- 24 The magnitude of the resultant of two equal vectors each of magnitude A acting at 60° is _____.
a. A b. 2A
c. $A\sqrt{2}$ d. $A\sqrt{3}$
- 25 The direction of the vector product $A \times B$ is given by the _____.
a. right-hand rule b. left-hand rule
c. parallelogram law d. triangle law
- 26 Two forces of 3 N and 4 N act at right angles. Their resultant is _____.
a. 1 N b. 5 N
c. 7 N d. 12 N

- 27 Acceleration is defined as the rate of change of _____.
a. displacement b. speed
c. **velocity** d. distance
- 28 The area under a velocity–time graph represents _____.
a. acceleration b. force
c. momentum d. **displacement**
- 29 The slope of a velocity–time graph gives _____.
a. **acceleration** b. displacement
c. velocity d. distance
- 30 Projectile motion is _____ dimensional motion.
a. one b. **two**
c. three d. four
- 31 During projectile motion, the horizontal component of velocity _____.
a. increases b. decreases
c. **remains constant** d. becomes zero
- 32 The range of a projectile is maximum at an angle of projection of _____.
a. 30° b. 60°
c. 90° d. **45°**
- 33 The range of a projectile is the same for angles of projection of _____.
a. 30° and 60° b. 30° and 45°
c. 45° and 60° d. 50° and 60°
- 34 At the highest point of its path, the vertical velocity of a projectile is _____.
a. maximum b. **zero**
c. equal to initial velocity d. minimum but non-zero
- 35 The equation $v = u + at$ is valid only for _____.
a. variable acceleration b. circular motion
c. **uniform acceleration** d. zero velocity
- 36 A body dropped from rest falls a distance proportional to _____ (t = time).
a. t b. $\sqrt{t}$
c. 1/t d. **t^2**
- 37 The time of flight of a projectile depends on the _____.
a. **vertical component of velocity** b. horizontal velocity only
c. range only d. mass of the body
- 38 A body moving with uniform velocity has _____.
a. increasing acceleration b. **zero acceleration**
c. decreasing acceleration d. maximum acceleration
- 39 For a projectile, the horizontal range is given by _____.
a. $u^2 \sin^2 \theta / g$ b. $2u \sin \theta / g$
c. **$u^2 \sin 2\theta / g$** d. $u^2 / 2g$
- 40 The velocity of a freely falling body after time t (from rest) is _____.
a. $\frac{1}{2}gt$ b. gt^2
c. 2gt d. **gt**
- 41 Displacement is a _____ quantity.
a. **vector** b. scalar
c. dimensionless d. base
- 42 The trajectory (path) of a projectile is a _____.
a. straight line b. **parabola**
c. circle d. hyperbola
- 43 Newton's first law of motion is also known as the law of _____.
a. momentum b. gravitation
c. **inertia** d. action-reaction
- 44 The rate of change of momentum of a body equals the _____.
a. mass b. velocity
c. acceleration only d. **applied force**
- 45 Momentum is the product of mass and _____.
a. **velocity** b. acceleration
c. force d. displacement
- 46 The SI unit of impulse is the _____.
a. N b. **N·s**
c. N/s d. J
- 47 Impulse is equal to the change in _____.
a. velocity b. kinetic energy
c. **momentum** d. displacement
- 48 In an isolated system, the total _____ is conserved.
a. velocity b. displacement
c. force d. **momentum**
- 49 The recoil of a gun when fired illustrates Newton's _____ law.
a. **third** b. first
c. second d. law of gravitation
- 50 A collision in which both momentum and kinetic energy are conserved is called _____.
a. inelastic b. **perfectly elastic**
c. perfectly inelastic d. plastic
- 51 In a perfectly inelastic collision, the quantity that is NOT conserved is _____.
a. momentum b. mass
c. **kinetic energy** d. charge
- 52 The weight of a body is given by _____.
a. mv b. ma
c. m/g d. **mg**
- 53 A body in a lift moving upward with acceleration a has apparent weight _____.
a. **$m(g+a)$** b. $m(g-a)$

- 54 The force needed to give a 2 kg body an acceleration of 5 m/s^2 is _____.
 a. 2.5 N b. 10 N
 c. 7 N d. 0.4 N
- 56 A rocket moves forward by the principle of conservation of _____.
 a. energy b. mass
 c. charge d. momentum
- 58 Friction acts _____ the direction of relative motion.
 a. along b. opposite to
 c. perpendicular to d. at 45° to
- 60 The work done by a force is maximum when the angle between force and displacement is _____.
 a. 45° b. 90°
 c. 180° d. 0°
- 62 Power is the rate of doing _____.
 a. force b. work
 c. momentum d. displacement
- 64 The gravitational potential energy of a body at height h is _____.
 a. $\frac{1}{2}mv^2$ b. mg/h
 c. mgh^2 d. mgh
- 66 The energy stored in the spring of a watch is _____.
 a. kinetic energy b. elastic potential energy
 c. electrical energy d. solar energy
- 68 The SI unit of power can also be written as _____.
 a. J·s b. N·m
 c. $\text{kg} \cdot \text{m/s}$ d. J/s
- 70 Centripetal acceleration is given by _____.
 a. v/r b. v^2/r
 c. vr d. v^2r
- 72 The relation between linear velocity v and angular velocity ω is _____.
 a. $v = \omega/r$ b. $v = r/\omega$
 c. $v = r^2\omega$ d. $v = r\omega$
- 74 The value of g at the centre of the Earth is _____.
 a. maximum b. zero
 c. 9.8 m/s^2 d. infinite
- 76 The torque is zero when the line of action of the force passes through the _____.
 a. edge of the body b. surface
 c. end of the body d. axis of rotation
- 78 The SI unit of torque is the _____.
 a. newton-metre b. newton
 c. joule d. watt
- 55 The tendency of a body to resist a change in its state of motion is called _____.
 a. momentum b. impulse
 c. inertia d. friction
- 57 The momentum of a 4 kg body moving at 5 m/s is _____.
 a. $20 \text{ kg} \cdot \text{m/s}$ b. $9 \text{ kg} \cdot \text{m/s}$
 c. $1.25 \text{ kg} \cdot \text{m/s}$ d. $0.8 \text{ kg} \cdot \text{m/s}$
- 59 The kinetic energy of a body of mass m moving with speed v is _____.
 a. mv b. mgh
 c. $\frac{1}{2}mv^2$ d. $\frac{1}{2}mv$
- 61 The work done by a force perpendicular to the displacement is _____.
 a. zero b. maximum
 c. negative d. infinite
- 63 One horsepower is approximately equal to _____.
 a. 1000 W b. 500 W
 c. 746 W d. 100 W
- 65 Which of the following is NOT a conservative force?
 a. Frictional b. Gravitational
 c. Electric d. Elastic
- 67 Work done in moving a body once completely around a circular path by a central force is _____.
 a. maximum b. negative
 c. zero d. infinite
- 69 The force that keeps a body moving in a circle, directed toward the centre, is _____.
 a. centripetal force b. centrifugal force
 c. gravitational force only d. frictional force
- 71 The angle through which a body turns per unit time is called _____.
 a. linear velocity b. acceleration
 c. angular velocity d. torque
- 73 Newton's law of gravitation states that force is inversely proportional to the _____.
 a. square of the distance b. distance
 c. mass d. square of the mass
- 75 For a geostationary satellite, the orbital period is _____.
 a. 1 hour b. 12 hours
 c. 24 hours d. 365 days
- 77 A body is in complete equilibrium when it satisfies _____.
 a. the first condition only b. the second condition only
 c. both the first and second conditions d. neither condition
- 79 In simple harmonic motion, the acceleration is directly proportional to the displacement and directed _____.
 a. away from the mean position b. toward the mean position
 c. perpendicular to it d. randomly

80 At the mean position during SHM, the body has _____.
 a. maximum P.E. and minimum K.E.
 b. maximum P.E. and K.E.
 c. zero K.E.
 d. minimum P.E. and maximum K.E.

82 The time taken to complete one vibration is called the _____.
 a. time period
 b. frequency
 c. amplitude
 d. wavelength

84 The SI unit of frequency is the _____.
 a. second
 b. metre
 c. newton
 d. hertz

86 The tuning of a radio set to a station is an example of _____.
 a. mechanical resonance
 b. electrical resonance
 c. free vibration
 d. damping

88 The frequency of microwaves in a microwave oven is about _____.
 a. 50 Hz
 b. 1435 kHz
 c. 100 MHz
 d. 2450 MHz

90 Light waves are _____ waves.
 a. longitudinal
 b. transverse
 c. mechanical
 d. sound

92 The relation between wave speed v , frequency f and wavelength λ is _____.
 a. $v = f/\lambda$
 b. $v = \lambda/f$
 c. $v = f + \lambda$
 d. $v = f\lambda$

94 Stationary waves are produced by the superposition of two identical waves travelling in _____.
 a. the same direction
 b. opposite directions
 c. perpendicular directions
 d. random directions

96 The loudness of a sound depends on its _____.
 a. frequency
 b. wavelength
 c. speed
 d. amplitude

98 A convex mirror always produces an image that is _____.
 a. larger than the object
 b. smaller than the object
 c. equal to the object
 d. real and inverted

100 The splitting of white light into its constituent colours is called _____.
 a. reflection
 b. refraction
 c. diffraction
 d. dispersion

102 The phenomenon responsible for the formation of a rainbow is _____.
 a. reflection only
 b. dispersion and refraction
 c. diffraction
 d. polarization

104 Optical fibres work on the principle of _____.
 a. dispersion
 b. diffraction
 c. polarization
 d. total internal reflection

81 When the bob of a simple pendulum is at an extreme position, it possesses only _____.
 a. kinetic energy
 b. potential energy
 c. both K.E. and P.E.
 d. no energy

83 The number of vibrations completed by a body in one second is called _____.
 a. time period
 b. amplitude
 c. frequency
 d. displacement

85 The time period of a simple pendulum depends on its length and _____.
 a. acceleration due to gravity
 b. mass of the bob
 c. amplitude
 d. material of the bob

87 Sound waves are _____ waves.
 a. transverse
 b. electromagnetic
 c. longitudinal
 d. stationary only

89 Sharpness of resonance is _____ to the damping force.
 a. inversely proportional
 b. directly proportional
 c. equal
 d. independent of

91 The distance between two consecutive crests of a wave is the _____.
 a. amplitude
 b. frequency
 c. wavelength
 d. time period

93 Beats are produced due to the _____ of two sound waves of slightly different frequencies.
 a. superposition
 b. reflection
 c. refraction
 d. polarization

95 Polarization is a property shown only by _____ waves.
 a. longitudinal
 b. sound
 c. transverse
 d. all

97 A lens that is thick at the centre and thin at the edges is a _____ lens.
 a. convex
 b. concave
 c. diverging
 d. plane

99 The power of a lens is measured in _____.
 a. watts
 b. joules
 c. dioptres
 d. newtons

101 The bending of light as it passes from one medium to another is called _____.
 a. refraction
 b. reflection
 c. dispersion
 d. interference

103 Total internal reflection occurs when light travels from a _____ to a rarer medium beyond the critical angle.
 a. rarer
 b. vacuum
 c. denser
 d. gas

105 A concave lens always forms an image that is _____.
 a. virtual and erect
 b. real and inverted
 c. magnified and real
 d. inverted and magnified

Group 11-12

- 106** The speed of light in a vacuum is approximately _____.
 a. 3×10^6 m/s b. 3×10^8 m/s
 c. 3×10^{10} m/s d. 3×10^5 m/s
- 108** -273°C on the Kelvin scale is approximately _____.
 a. 273 K b. 173 K
 c. 100 K d. 0 K
- 110** The process in which no heat enters or leaves the system is called _____.
 a. isothermal b. adiabatic
 c. isobaric d. isochoric
- 112** The efficiency of a heat engine can never be _____.
 a. less than 100% b. greater than zero
 c. moderate d. equal to 100%
- 114** Entropy is a measure of the _____ of a system.
 a. order b. disorder
 c. temperature d. pressure
- 116** Ohm's law states that $V =$ _____.
 a. I/R b. R/I
 c. I^2R d. IR
- 118** Einstein's mass-energy relation is _____.
 a. $E = mc$ b. $E = mc^2$
 c. $E = m/c^2$ d. $E = m^2c$
- 120** Radiation damages cancer cells more than normal cells mainly because cancer cells _____.
 a. do not multiply often b. have thick walls
 c. lack nutrition d. undergo rapid division
- 122** The subatomic particle with a negligible mass and a negative charge is the _____.
 a. proton b. electron
 c. neutron d. positron
- 124** Across a period from left to right, the non-metallic character of elements generally _____.
 a. decreases b. remains same
 c. becomes zero d. increases
- 126** The general electronic configuration of the valence shell of alkali metals is _____.
 a. ns^2 b. ns^1
 c. ns^2np^1 d. ns^2np^2
- 128** The ionization energy of sodium is less than that of _____.
 a. aluminium b. magnesium
 c. both aluminium and magnesium d. none of them
- 130** A chemical bond formed by the complete transfer of electrons is a(n) _____ bond.
 a. ionic b. covalent
 c. metallic d. hydrogen
- 107** At absolute zero (0 K), the kinetic energy of the molecules of an ideal gas is _____.
 a. maximum b. infinite
 c. zero d. unchanged
- 109** The first law of thermodynamics is a statement of the conservation of _____.
 a. energy b. momentum
 c. mass d. charge
- 111** A process that occurs at constant temperature is called _____.
 a. adiabatic b. isobaric
 c. isothermal d. isochoric
- 113** The quantity of heat required to raise the temperature of unit mass by one degree is the _____.
 a. specific heat capacity b. latent heat
 c. thermal conductivity d. entropy
- 115** The SI unit of electric charge is the _____.
 a. ampere b. volt
 c. coulomb d. ohm
- 117** In a dry cell, the carbon (graphite) rod acts as the _____.
 a. cathode b. anode
 c. electrolyte d. separator
- 119** The photoelectric effect demonstrates the _____ nature of light.
 a. wave b. magnetic
 c. particle d. fluid
- 121** The maximum number of electrons that can be accommodated in the M shell ($n=3$) is _____.
 a. 18 b. 8
 c. 32 d. 2
- 123** The modern periodic table arranges elements in order of increasing _____.
 a. atomic mass b. density
 c. atomic number d. valency
- 125** The most electronegative element in the periodic table is _____.
 a. fluorine b. chlorine
 c. oxygen d. bromine
- 127** Ionization energy generally _____ down a group.
 a. increases b. remains constant
 c. decreases d. becomes zero
- 129** When atoms lose electrons they form positively charged ions called _____.
 a. anions b. isotopes
 c. radicals d. cations
- 131** A chemical bond formed by the mutual sharing of electrons is a(n) _____ bond.
 a. ionic b. covalent
 c. electrovalent d. metallic

Group 11-12

159 A substance that increases the rate of a reaction without being consumed is a ____.

- a. reactant
b. solvent
c. catalyst
d. product

a. red
b. blue
c. green
d. colourless

a. tin
b. lead
c. zinc
d. nickel

a. neutrons
b. protons
c. electrons
d. charges

a. -OH
c. -COOH

a. alkenes
c. alkynes

a. sterol
b. cholesterol
c. lecithin
d. steroid

a. nucleotides
b. amino acids
c. fatty acids
d. glucose units

a. lipids b. carbohydrates
c. **proteins** d. minerals

a. carbonic anhydrase
b. DNA gyrase
c. pepsin
d. DNA polymerase

a. lipase
b. pepsin
c. lactase
d. amylase

a. secretin
b. cholecystokinin
c. both secretin and cholecystokinin
d. enterokinase

a. glottis
c. pili
a. casein
c. undigested fat

b. microvilli
d. bolus
b. pancreatic pigments
d. bile pigments

a. casein
b. pancreatic pigments
c. undigested fat
d. bile pigments

236 Guard cells regulate the opening and closing of the _____.

- a. lenticels
- b. xylem vessels
- c. root hairs
- d. stomata

238 Organisms that can make their own food are called _____.

- a. heterotrophs
- b. autotrophs
- c. saprotrophs
- d. parasites

240 The total variety of living organisms in a given area is called its _____.

- a. biomass
- b. population
- c. community
- d. biodiversity

242 The ratio of stress to strain within the elastic limit is called _____.

- a. density
- b. Young's modulus
- c. pressure
- d. viscosity

244 The upward force experienced by a body immersed in a fluid is called _____.

- a. viscosity
- b. surface tension
- c. drag
- d. upthrust (buoyancy)

246 At constant temperature, the pressure of a gas is inversely proportional to its volume. This is _____.

- a. Charles's law
- b. Boyle's law
- c. Gay-Lussac's law
- d. Avogadro's law

248 The emf induced in a circuit is proportional to the rate of change of magnetic flux. This is _____ law.

- a. Ohm's
- b. Coulomb's
- c. Lenz's
- d. Faraday's

250 A transformer works on the principle of _____.

- a. self induction
- b. mutual induction
- c. electrolysis
- d. resonance

252 The device that converts mechanical energy into electrical energy is a _____.

- a. motor
- b. transformer
- c. rectifier
- d. generator

254 The capacitance of a capacitor is measured in _____.

- a. farad
- b. ohm
- c. henry
- d. tesla

256 During beta decay, a nucleus emits a(n) _____.

- a. helium nucleus
- b. proton
- c. neutron
- d. electron

258 The time required for half of a radioactive sample to decay is its _____.

- a. mean life
- b. half-life
- c. time period
- d. decay constant

260 The source of the Sun's energy is nuclear _____.

- a. fission
- b. combustion
- c. decay
- d. fusion

237 The study of interactions between organisms and their environment is called _____.

- a. ecology
- b. taxonomy
- c. physiology
- d. genetics

239 Which gland is known as the master gland of the body?

- a. thyroid
- b. adrenal
- c. pituitary
- d. pancreas

241 According to Hooke's law, within the elastic limit, stress is directly proportional to _____.

- a. strain
- b. time
- c. temperature
- d. volume

243 Bernoulli's equation is based on the conservation of _____.

- a. momentum
- b. mass
- c. energy
- d. charge

245 The viscous drag on a small sphere moving through a fluid is given by _____.

- a. Stokes' law
- b. Ohm's law
- c. Hooke's law
- d. Boyle's law

247 At constant pressure, the volume of a gas is directly proportional to its absolute temperature. This is _____.

- a. Boyle's law
- b. Dalton's law
- c. Charles's law
- d. Graham's law

249 The direction of an induced current opposes the change producing it. This is _____ law.

- a. Lenz's
- b. Faraday's
- c. Ampere's
- d. Ohm's

251 A step-up transformer increases _____.

- a. current
- b. frequency
- c. voltage
- d. power

253 A p-n junction diode allows current to flow mainly in _____.

- a. both directions
- b. one direction
- c. no direction
- d. random directions

255 The energy of a photon is given by _____.

- a. h/f
- b. hf^2
- c. hf
- d. f/h

257 Alpha particles are identical to _____ nuclei.

- a. helium
- b. hydrogen
- c. carbon
- d. oxygen

259 The process of splitting a heavy nucleus into lighter nuclei is called nuclear _____.

- a. fusion
- b. decay
- c. fission
- d. ionization

261 The number of atoms or molecules in one mole of a substance is given by _____.

- a. Avogadro's number
- b. Planck's constant
- c. Faraday's constant
- d. the gas constant

Group 11-12

- 262 The hybridization of carbon in methane (CH₄) is _____.
a. sp b. sp³
c. sp² d. dsp²
- 264 The hybridization of carbon in ethene (C₂H₄) is _____.
a. sp b. sp³
c. sp³d d. sp²
- 266 A catalyst increases the rate of reaction by lowering the _____.
a. enthalpy b. activation energy
c. temperature d. pressure
- 268 The oxidation number of oxygen in most compounds is _____.
a. 0 b. +2
c. -1 d. -2
- 270 The functional group of aldehydes is _____.
a. -OH b. -CHO
c. -COOH d. -CO-
- 272 Esters are formed by the reaction of a carboxylic acid with a(n) _____.
a. aldehyde b. ketone
c. alkane d. alcohol
- 274 Compounds with the same molecular formula but different structures are called _____.
a. isotopes b. isomers
c. allotropes d. isobars
- 276 A solution that resists change in pH on adding small amounts of acid or base is a _____.
a. suspension b. colloid
c. saturated solution d. buffer
- 278 The molar volume of an ideal gas at STP is about _____.
a. 2.24 L b. 22.4 L
c. 44.8 L d. 11.2 L
- 280 The strongest type of intermolecular force among the following is the _____.
a. London dispersion force b. dipole-dipole force
c. ion-induced dipole d. hydrogen bond
- 282 The process by which DNA makes an exact copy of itself is called _____.
a. transcription b. replication
c. translation d. mutation
- 284 The synthesis of protein from an mRNA template at the ribosome is called _____.
a. transcription b. replication
c. transformation d. translation
- 286 In humans, the normal diploid chromosome number is _____.
a. 23 b. 46
c. 44 d. 48
- 263 The shape of a methane (CH₄) molecule is _____.
a. linear b. trigonal planar
c. tetrahedral d. octahedral
- 265 According to Le Chatelier's principle, increasing the pressure on an equilibrium shifts it toward the side with _____ moles of gas.
a. fewer b. more
c. equal d. zero
- 267 The oxidation number of hydrogen in most of its compounds is _____.
a. 0 b. -1
c. +1 d. +2
- 269 In a galvanic (voltaic) cell, oxidation occurs at the _____.
a. anode b. cathode
c. salt bridge d. voltmeter
- 271 The functional group of ketones is _____.
a. -CHO b. -COOH
c. carbonyl (>C=O) between carbons d. -OH
- 273 Benzene (C₆H₆) is a(n) _____ hydrocarbon.
a. aromatic b. saturated aliphatic
c. alkyne d. alicyclic alkane
- 275 The pH of a solution with a hydrogen-ion concentration of 1×10^{-3} mol/dm³ is _____.
a. 1 b. 7
c. 3 d. 11
- 277 Avogadro's law states that equal volumes of gases at the same temperature and pressure contain equal numbers of _____.
a. molecules b. atoms
c. electrons d. ions
- 279 The bond formed by sharing two pairs of electrons is a _____ bond.
a. single covalent b. triple covalent
c. double covalent d. ionic
- 281 The father of genetics is _____.
a. Gregor Mendel b. Charles Darwin
c. Louis Pasteur d. Robert Hooke
- 283 The synthesis of messenger RNA from a DNA template is called _____.
a. replication b. translation
c. transcription d. duplication
- 285 The type of cell division that produces gametes with half the chromosome number is _____.
a. meiosis b. mitosis
c. binary fission d. budding
- 287 The light-dependent reactions of photosynthesis occur in the _____ of the chloroplast.
a. stroma b. matrix
c. thylakoid membranes d. cytoplasm

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- 288 The dark reactions (Calvin cycle) of photosynthesis occur in the _____.
 a. thylakoids b. grana
 c. nucleus d. stroma
- 290 The Krebs cycle takes place in the _____.
 a. cytoplasm b. mitochondrial matrix
 c. nucleus d. chloroplast
- 292 The hormone that raises blood glucose by converting glycogen to glucose is _____.
 a. insulin b. oestrogen
 c. oxytocin d. glucagon
- 294 The 'fight or flight' hormone secreted by the adrenal medulla is _____.
 a. insulin b. adrenaline
 c. thyroxine d. glucagon
- 296 The maintenance of a stable internal environment in the body is called _____.
 a. metabolism b. photosynthesis
 c. osmoregulation only d. homeostasis
- 298 The bacteria that convert atmospheric nitrogen into nitrogen compounds carry out _____.
 a. denitrification b. nitrogen fixation
 c. photosynthesis d. respiration
- 300 The theory of evolution by natural selection was proposed by _____.
 a. Lamarck b. Mendel
 c. Linnaeus d. Charles Darwin
- 289 Glycolysis takes place in the _____ of the cell.
 a. cytoplasm b. mitochondrion
 c. nucleus d. ribosome
- 291 The hormone that lowers blood glucose level is _____.
 a. glucagon b. adrenaline
 c. insulin d. thyroxine
- 293 The hormone secreted by the thyroid gland is _____.
 a. thyroxine b. insulin
 c. adrenaline d. testosterone
- 295 The plant hormone responsible for cell elongation and phototropism is _____.
 a. ethylene b. abscisic acid
 c. auxin d. cytokinin
- 297 Oxygenated blood is carried from the lungs to the heart by the _____.
 a. pulmonary vein b. pulmonary artery
 c. aorta d. vena cava
- 299 In a food chain, organisms that occupy the first trophic level are the _____.
 a. herbivores b. carnivores
 c. producers d. decomposers



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