PMC PAID PRACTICE TEST 02

SOLVED

CHEMISTRY

Q.1 **Suppression of ionization means**

A. Decreasing Ionization
B. Increasing Ionization
C. Maintaining Ionization
D. None of these

Q.2 **an element or its compound is first _____ to get its _____ spectrum by spectrometer**

A. freezed, continuous
B. freezed, line
C. volatilized, line
D. volatilized, continuous

Q.3 **_____is a macromolecule found in blood**

A. Hemoglobin
B. plasma
C. creatinine
D. plasmids

Q.4 **$[Fe(CN)_6]^{4-}$ is called as____?**

A. Complex compound
B. Transition element ion
C. Anion
D. Complex anion

Q.5 **Allotropes are of same**

A. Compounds
B. Molecules
C. Ions
D. Element

Q.6 **How many products of mono-substituted benzene are possible?**

A. Two
B. One
C. Three
D. None of these

Q.7 **Which of the following forces have no relation with valence electrons?**

A. Ionic Bond
B. Chemical bond
C. Intermolecular forces
D. Intramolecular forces

Q.8 **Electrode Potential is developed when a metal is dipped into**

A. An Acid
B. A base
C. In its own ions
D. Water

Q.9 **The unit of electronegativity is**

A. Joule
B. Kilojoules
C. watt
D. no unit

Q.10 **Which of the following give silver mirror test?**

A. Butanal
B. Methanal
C. Ethanal
D. All of these

Q.11 **Acetic acid is soluble in;**

A. Water, Alcohol, Ether
B. HCl, HBr, HI
C. Bromine water
D. All of these

Q.12 **If Water is present on a cup placed on a table, what will be the system in this case?**

A. Water
B. Water in cup
C. Whole table
D. All of these

Q.13 Alkali metals group lies in _____?

A. d-block
B. s-block
C. f- block
D. P- block

Q.14 Kinetic Energy is the sum of

A. Rotational & Vibrational
B. Translation & Rotational
C. Rotational, Vibrational and Translation
D. All of these

Q.15 In NaCl crystal, chloride ions present at the face center are distributed in

A. One Unit Cell
B. 8 Unit cells
C. 4 Unit cells
D. 2 Unit cells

Q.16 Actual yield is always less than theoretical yield due to

A. Operational losses
B. reaction reversibility
C. side reaction
D. all of these

Q.17 Legumine & collagen protein are present in which type of body tissues:

A. Cardiac
B. Epithelial
C. Connective
D. Epidermis

Q.18 The increase in size of an anion is due to increase in repulsion of

A. electron-proton
B. electron-electron
C. electron-nucleus
D. proton-nucleus

Q.19 Graphite has a structural similarity with

A. B_2H_6
B. B_4C
C. B
D. BN

Q.20 The order of reaction for which half-life is inversely proportional to the concentration of reaction is

A. Second Order
B. Zero Order
C. First Order
D. Third Order

Q.21 SN_1 reaction is a _____?

A. Multistep reaction
B. Two step reactions
C. Concerted reaction
D. 3 step reaction

Q.22 The unhybridized p orbitals of benzene are present in the form of_____?

A. Between the C-C bonds of benzene
B. Above and below the carbon bonds
C. In the form of cloud above and below the benzene ring
D. None of these

Q.23 What is the color of silver acetylide, AgC≡CAg?

A. Red
B. White
C. Brown
D. Pinkish

Q.24 Non polar covalent bond is formed b/w

A. homonuclear diatomic molecules
B. heteronuclear diatomic molecules
C. similar atoms
D. dissimilar atoms

Q.25 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

Q.26 A polymer called Bakelite is formed by reaction of phenol with

A. hydrogen
B. ethers
C. carboxylic acid
D. formaldehyde

Q.27 The temperature at which one crystalline form changes to other is called _temperature

A. critical
B. absolute
C. transition
D. none of these

Q.28 Fuels with higher octane number can be produce by_____?

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

Q.29 Which one of them is used as an automobile antifreeze

A. Ethanol
B. ethene
C. ethylene glycol
D. propene

Q.30 How meta directing groups affect the Electrophilic substitution of benzene ring?

A. Increase electron density at ortho,para position
B. Decrease electron density at ortho and para positions
C. Make benzene less reactive
D. Both B and C

Q.31 In case of $HOCH_2CH_2CH_2COOH$, from were numbering is started ?

A. OH group is given number 1
B. Carboxylic acid is given Number 1 position
C. COOH is given number 3 position
D. COOH is given number 4 position

Q.32 vapor pressure is measured by calculating difference in liquid pressure and

A. mercury pressure
B. glass pressure
C. atmospheric pressure
D. container pressure

Q.33 Rate constant is denoted by?

A. k
B. kr
C. kv
D. ks

Q.34 Which of these have a positive value of enthalpy?

A. Combustion
B. Neutralization
C. Atomization
D. All of these

Q.35 Instantaneous dipole is produced when _____?

A. Two polar molecules come closer
B. Two non-polar molecules comes closer
C. Polar and nonpolar molecule comes closer
D. All of these

Q.36 How will the conditions be changed to prevent the volume of the given gas from expanding when its mass is increased

A. Temperature and pressure increased

B. Temperature is lowered and pressure decreased

C. Temperature and pressure increased

D. Temperature is lowered and pressure increased

Q.37 In Lucas test, tertiary alcohols form oily layer of alkyl halid_____?

A. On heating

B. Immediately

C. After 5-10 minutes

D. After 20 minutes

Q.38 Water is considered as a Universal solvent because of which properties?

A. Polar nature of water

B. H-bonding

C. Electronegativity difference

D. All are correct

Q.39 Which one of the following enthalpy change is always exothermic in nature?

A. Enthalpy of combustion

B. Enthalpy of solution

C. Enthalpy of formation

D. Enthalpy of atomization

Q.40 Octane number of n-heptane is_____?

A. 0

B. 100

C. 40

D. 98

Q.41 Which of the following is not aromatic?

A. Anthracene

B. Naphthalene

C. Phenol

D. None of these

Q.42 Which of the carboxylic acid is used in medicine as local irritant;

A. formic acid

B. acetic acid

C. benzoic acid

D. amino acid

Q.43 The formula for calculating electron in subshells or sub energy levels is

A. 2l+1

B. 2(l+1)

C. 2(2l+1)

D. 2(2l-1)

Q.44 When two atoms bonded to form a stable compound, the attractive forces will __repulsive forces and the potential energy of the system will be ___-

A. recessive, higher

B. dominate, minimum

C. dominate,maximum

D. recessive, lower

Q.45 What is the value of molecularity and order of SN_1 reactions?

A. 2,1

B. 1,1

C. 0,1

D. 0,2

Q.46 What will be density of CH_4 at C and 1 atm

A. 7138 g/cm^3

B. 0.7138g/dm^3

C. 0.7138g/cm^3

D. 71.38g/dm^3

Q.47 Fused Bauxite is electrolyzed to get

A. Sodium

B. Magnesium

C. Aluminum

D. Iron

Q.48 Which of the following alkyl halide is most reactive towards Mg atom?

A. Alkyl bromide

B. Alkyl fluoride

C. Alkyl chloride

D. Alkyl iodide

Q.49 Boiling point of hydrides of 4th period is larger than _____?

A. 5th period

B. 3rd period

C. 6th period
D. 7th period

Q.50 sodium-11 has electronic configuration

A. $[He]^2s^1$
B. $[Ne]^3s^1$
C. $[Ne]^3s^2$
D. $[He]^2s^2$

Q.51 When are the prefixes ortho, para, and para used?

A. In alkynes to identify the position of triple bond
B. In arenes to identify the position first substitution
C. In arenes to identify the position second substitution
D. In all hydrocarbons to identify the position functional group

Q.52 Which of the following is an example of aromatic carboxylic acid?

A. Ethanoic acid
B. Butanoic acid
C. Adipic acid
D. Phthalic acid

Q.53 If Kp and Kc have same values Δn will be

A. Maximum
B. Minimum
C. Zero
D. Negligible

Q.54 Which is sold as fertilizer

A. $CaSiO_3$
B. Na_2SiO_3
C. $Ca_3(PO_4)_2$
D. $MnSiO_3$

Q.55 Calculate mass in grams of 8.694 moles of Ag_2CO_3

A. 1417.53g
B. 2399.544g
C. 3456.78g
D. 1231.98g

BIOLOGY

Q.56 The process of determining the locus for particular biological traits includes?

A. replication
B. recombination
C. gene mapping
D. none of these

Q.57 The attraction between water molecules and cell wall of xylem is termed as:

A. cohesion
B. tension
C. adhesion
D. imbibition

Q.58 Gametes in animals are produced by which of the following?

A. mitosis
B. meiosis
C. fission
D. all of these

Q.59 A neural pathway that controls an action reflex is called:

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

Q.60 Who discovered the bacteria causing tuberculosis and also developed various techniques of media preparation and maintenance of pure culture?

A. Robert Koch
B. Louis Pasteur
C. Alexander Fleming
D. leeuwenhoek

Q.61 The ability to pass on genes is defined as which of the following?

A. Differential reproduction
B. Evolution
C. Natural selection
D. Fitness

Q.62 The first actin spectrum was obtained by?

A. T.W.Engelmann
B. Malleus
C. T W Inws
D. W Stapes

Q.63 Pancreatic zymogens are only activated when they reached at?

A. stomach
B. pancreas
C. small intestine
D. large intestine

Q.64 Proteins and lipids are converted into glycolipids and glycoproteins by adding carbohydrates by?

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

Q.65 What is the color of Xanthophyll pigment?

A. Yellow
B. Red
C. Orange
D. Green

Q.66 What type of atom is a carbon atom?

A. Divalent
B. monovalent
C. trivalent
D. tetravalent

Q.67 The spinal cord is part of:

A. brain
B. Central nervous system
C. peripheral nervous system
D. somatic division

Q.68 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

Q.69 The best function of coelom is described as

A. To increase the size of the animals
B. To help in the functioning of reproductive system
C. To provide space for the development of organs and systems
D. all of these

Q.70 What structure marks the separation between two sarcomeres?

A. I band
B. H zone
C. A band
D. Z line

Q.71 Number of substrate molecules converted into product by one molecule of enzyme active site per unit time is called?

A. turnover number
B. substrate number
C. reaction number
D. none of these

Q.72 Icosahedral Viruses have how many faces?

A. 20
B. 30
C. 10
D. 40

Q.73 Ribonucleoprotein particles are the name of?

A. RNA
B. DNA
C. Nucleus
D. Eukaryotic ribosomes

Q.74 The homologous organs show similarity in

A. shape
B. origin

C. function D. size

Q.75 Where does the dark reaction of photosynthesis takes place?

A. Thylakoid B. Grana

C. Stroma D. all of these

Q.76 Which of the following is not vestigial organ of man?

A. appendix B. coccyx

C. both a and b D. none of these

Q.77 Which of following system is segmentally arranged in annelids?

A. excretory system B. digestive system

C. circulatory system D. nervous system

Q.78 An activated enzyme made of polypeptide chain and a cofactor is?

A. substrate B. coenzyme

C. apoenzyme D. holoenzyme

Q.79 Which of these is the functional unit of lungs?

A. alveoli B. bronchioles

C. air-sac D. bronchi

Q.80 How many pairs of homologous chromosomes are present in Pisum sativum?

A. 5 B. 6

C. 7 D. 8

Q.81 What type of virus is the smallpox virus?

A. DNA enveloped virus B. RNA enveloped virus

C. DNA virus D. RNA naked virus

Q.82 The spermatic cord and spermatic duct are?

A. the same B. different

C. same in function D. same in location

Q.83 One of these animals is a prototherian.

A. Alligator B. Penguin

C. Porcupine D. Spiny anteater

Q.84 Chlorophyll b is found in which organisms?

A. Green plants B. green algae

C. Animals D. both A and B

Q.85 There is no vaccine against HIV, what is the possible reason?

A. the virus is highly mutated

B. the vaccine is too expensive

C. the virus can be controlled through change in hygiene

D. none of these

Q.86 Thymus is found in human body in —

A. in the medulla oblongata

B. in the mediastinum of the upper thorax

C. both A and B are correct

D. None of these

Q.87 When a muscle fibre shortens, the following also shortens:

A. actin filament
B. Sarcomere
C. Both A and B are correct
D. myosin

Q.88 Which of the following is an ovoviviparous organism?

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

Q.89 Which among the following defines GPI anchored proteins?

A. Integral proteins of the plasma membrane
B. Proteins that bind to ion-gated channels in the plasma membrane
C. Proteins which randomly bind to lipids of the plasma membrane
D. Peripheral proteins of the plasma membrane

Q.90 True breeding variety is produced by which of the following?

A. Cross fertilization
B. Self-fertilization
C. both a and b
D. none of these

Q.91 Which of the following is an example of superficial reflexes?

A. ankle jerk
B. Knee jerk
C. abdominal reflex
D. Both A and B

Q.92 What is the least common electron transport chain?

A. non-cyclic electron flow
B. cyclic electron flow
C. circular electron flow
D. both b and c

Q.93 What is the length of spinal cord?

A. 10-20 cm
B. 20-30cm
C. 40-50cm
D. 60-90 cm

Q.94 In sponges fertilization takes place in which of the following?

A. Ectoderm
B. Endoderm
C. Uterus
D. Mesenchyme

Q.95 Which statement correctly describes the alimentary canal of hydra?

A. The alimentary canal is formed from the endodermal cells.
B. The alimentary canal has a single opening.
C. The alimentary canal is sac-like.
D. All of the above.

Q.96 What is the final product of the krebs cycle?

A. malate
B. succinate
C. oxaloacetate
D. fumarate

Q.97 Chlorophyll molecule contains which ion as a central metal ion?

A. Fe^{2+}
B. Zn^{2+}
C. Cu^{2+}
D. Mg^{2+}

Q.98 Nontoxic vitamins include which of the following?

A. vitamin c
B. vitamin b
C. both a and b
D. none of these

Q.99 All of the following are continuously varying traits except?

A. Kernel colour in wheat
B. Skin colour in humans

C. Height in humans D. Tongue rolling in humans

Q.100 Which of the following is a unique characteristic of prokaryotic cells?

A. Lack of a cytoplast

B. Presence of a cell wall

C. Inability to create proton gradients

D. mRNA translation simultaneous to transcription

Q.101 Which bond provides stability to complex carbohydrate molecules?

A. C−H B. C−N

C. C−O D. C−C

Q.102 The number of water soluble vitamins is?

A. 3 B. 6

C. 9 D. 12

Q.103 What is the approximate value of the active membrane potential?

A. 0.07V B. -50 mv

C. 0.05 V D. Both a and b

Q.104 If we add more substrate to already occurring enzymatic reaction and it has no affect on the rate of reaction, the process is called?

A. denaturation B. saturation

C. composition D. inhibition

Q.105 The number of stages involved in heart beat is

A. 2 B. 3

C. 4 D. 5

Q.106 Purple non-sulphur bacteria is an example of which of the following?

A. Heterotrophic bacteria B. Saprotrophic bacteria

C. Chemosynthetic bacteria D. Photosynthetic bacteria

Q.107 Which of the following types of bacterial reproduction is most similar to mitosis?

A. transduction B. transformation

C. binary fission D. conjugation

Q.108 Saponification number describes___

A. Unsaturation in fat B. Average molecular weight of fatty acid

C. Acetyl number D. Acid number

Q.109 Who proposed starch sugar hypothesis?

A. Sager B. Dixon

C. Mohi D. Drebs

Q.110 Which statement best describes the Hardy-Weinberg principle?

A. Recessive alleles eventually disappear in large populations.

B. Expected frequencies of alleles are impossible to predict mathematically.

C. Dominant alleles become more prevalent in large populations.

D. When there is a large population, the mechanism of inheritance does not change allele frequencies.

Q.111 _____ refers to the breakdown or removal of the capsid

A. assembly B. uncoating

C. integration
D. maturation

Q.112 The epididymis, vas deferens, and urethra are a series of ducts found in which body system?

A. Endocrine
B. Lymphatic
C. Digestive
D. Male reproductive

Q.113 The optimum pH for the functioning of the enzyme pepsin is?

A. 2
B. 3
C. 4
D. 5

Q.114 What is the name of the region where double-stranded single circular DNA is found in the prokaryotic cell?

A. Proton Nucleus
B. Nucleus
C. Nucleoplasm
D. Nucleoid

Q.115 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

Q.116 The idea that opposed the idea of abiogenesis was proposed by?

A. Robert Hooke
B. Robert brown
C. rudolph Virchow
D. lorenz oken

Q.117 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

Q.118 Which of the following is known as a bony joint?

A. synostosis
B. symphysis
C. Syndesmosis
D. interosseous membrane

Q.119 Which of the following is not a true characteristic of spermatogonia?

A. They develop into primary spermatocytes through mitosis
B. They are undifferentiated
C. They are germ line cells
D. They are haploid

Q.120 The brain that coordinates skeletal muscle movements is:

A. Thalamus
B. Amygdala
C. Hypothalamus
D. Cerebellum

Q.121 Which type of cell would be the most appropriate for the study of chloroplasts?

A. conducting cell
B. pericycle cell
C. photosynthetic cell
D. all of these

Q.122 What are the end products of the ETC in animals?

A. ATP
B. carbon dioxide
C. water
D. both a and c

Q.123 During transport of carbon dioxide, blood does not become acidic due to:

A. Blood buffer
B Neutralization of H_2CO_3 by Na_2CO_3

C. Absorption by leukocytes D. Non-accumulation

PHYSICS

Q.124 Centrifuge is used to purify

A. U B. H

C. O D. N

Q.125 The speed v of the waves in the string depends upon the tension F of the string and m, the mass per unit length of the string. It is given by

A. $v^2 = F/m$ B. $v = F/m$

C. $v \times m = F$ D. $v = F \times m$

Q.126 Momentum of a photon is

A. 0 B. α

C. hf/c D. mv

Q.127 The SI Unit for resistance is?

A. Ohm B. Ampere

C. Watt D. Volts

Q.128 The displacement has_____

A. magnitude only B. direction only

C. magnitude and direction D. no unit

Q.129 The mutual induction happens in

A. AC generator B. DC generator

C. Battery D. Transformer

Q.130 During the circular path in magnetic field, what is the magnetic force

A. F= Qb B. $F = qB^2$

C. F = qB/v D. F = qvB

Q.131 Non-inverting amplifier circuits have

A. A very high input impedance B. A very low input impedance

C. A low output impedance D. None of the above

Q.132 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. Total nuclei decay

Q.133 Electric power is

A. Rate of electric work done per unit time B. Voltage per unit time

C. Electric charge per unit time D. Current per unit time

Q.134 A longitudinal wave is moving through a medium. Which of the following statements about direction of propagation of wave and displacement of the medium is true?

A. Displacement of medium = parallel to the energy transfer direction of propagation of wave = parallel to the energy transfer

B. Displacement of medium = parallel to the energy transfer direction of propagation of wave = perpendicular to the energy transfer

C. Displacement of medium = perpendicular to the energy transfer direction of propagation of wave = parallel to the energy transfer

D. Displacement of medium = perpendicular to the energy transfer direction of propagation of wave = perpendicular to the energy transfer

Q.135 The bridge rectifier is preferred to an ordinary two diode full wave rectifier because

A. It needs much smaller transformer for the same output

B. No center tap required

C. Less PIV rating per diode

D. All of the above

Q.136 Ohm's law is valid when the temperature of conductor is :

A. Very low

B. Very high

C. Varying

D. Constant

Q.137 Mass and energy are related to each other by

A. Newton's law

B. Einstein law

C. Coulomb law

D. All of these

Q.138 The nuclear forces are considered as

A. Strong force

B. Weak force

C. Electromagnetic force

D. All of these

Q.139 Which, among the following qualities, is not affected by the magnetic field?

A. Moving charge

B. Charge in magnetic flux

C. Current flowing in conductor

D. Stationary charge

Q.140 A line normal to the wavefront, showing the direction of propagation of light is called:

A. Tangent

B. Radius

C. Wavelength

D. Ray of light

Q.141 If N is the number of molecules of a gas in a container. Then number of moles can be calculated as:....

A. N + NA

B. NA ------- N

C. N ---- NA

D. N × NA

Q.142 Consider a car is travelling for one hour. In which of the following cases the average velocity is zero?

A. Car travels 20 km due east

B. Car travels 60 km due east, then turns around and travels 40 km due west

C. Car travels 70 km due east

D. Car travels 30 km due west, then turns around and travels 30 km due east

Q.143 If a half wave rectifier is used to convert 50Hz AC into DC, then the number of pulses present in rectifier voltage is

A. 25

B. 50

C. 100

D. 75

Q.144 Emf becomes equal to terminal potential difference when

A. Circuit is closed
B. Current is max
C. Circuit is open
D. All of these

Q.145 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

Q.146 Isothermal process can be defined as:...

A. PV = constant
B. PV = RT
C. P / V = constant
D. P / V = Nrt

Q.147 If we are standing in bus and when conductors apply a brake then we feel

A. pseudo force pushes backwards
B. pseudo force pushes forwards
C. real force pushes backwards
D. real force pushes forwards

Q.148 Displacement is a

A. tensor
B. vector
C. scalar
D. None of these

Q.149 Strength of magnetic field is called

A. strength
B. flux
C. magnetic flux density
D. density

Q.150 The first law of thermodynamics can be stated as:

A. $Q = \Delta U + W$
B. $Q + \Delta U = W$
C. $Q = \Delta U - W$
D. $Q = \Delta U \times W$

Q.151 According to Einstein, mass and energy are

A. Inversely
B. Directly
C. Equal to
D. None of these

Q.152 If r=1m and θ= 1° then what is the value of S

A. 0.01745m
B. 1m
C. 2m
D. None

Q.153 The magnetic field is parallel to a surface, then the magnetic flux through the surface is :

A. Zero
B. Small but not zero
C. Infinite
D. Larger than 1

Q.154 X-ray is the reverse process of :

A. Pair production
B. Compton effect
C. Photoelectric effect
D. A & B are correct

Q.155 When a body moves in a circle, the angle between its linear velocity and angular velocity is always?

A. 180
B. 0
C. 90
D. 45

Q.156 A particle of mass 'm' is projected from the ground with an initial speed u0 at an angle 'a'with the horizontal. At the highest point of its trajectory, it makes a

completely in inelastic collision with another particle of mass which was thrown vertically upward from the ground with the same initial speed u0. The angle that the composite system makes with the horizontal immediately after the collision is

A. 37°
B. 45°-a
C. 45°+a
D. 90°

Q.157 Three objects are brought close to each other, two at a time. When objects A and B are brought together, they repel. When objects B and C are brought together, they also repel. Which of the following are true?

A. Objects A and C possess charges of the same sign, but not B
B. Objects A and C possess charges of opposite sign
C. All three objects possess charges of the same sign
D. One object is neutral

Q.158 Which principle is used in solar cells?

A. momentum
B. charge
C. mass
D. all of these

Q.159 A liquid has mass m and specific heat capacity c. The rate of change in temperature of liquid is R. What is the rate at which heat is transferred from the liquid.

A. Rmc
B. R -------- mc
C. mc -------- R
D. Rm -------- c

Q.160 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

Q.161 Which one of them is a type of emission

A. Spontaneous
B. Stimulated
C. Both A and B
D. None of these

Q.162 Which one of them is a type of emission

A. Spontaneous
B. Stimulated
C. Both A and B
D. None of these

Q.163 The shortest distance between two points on the wave that have a phase difference of $(\frac{\pi}{3})$ is 5 cm. What is its wavelength?

A. 10 cm
B. 20 cm
C. 30 cm
D. 40 cm

Q.164 An example of non-ohmic resistor is

A. Diode
B. Tungsten wire
C. Carbon resistance
D. Copper wire

Q.165 When the nucleus of an unstable atom emits only gamma radiation, the nucleus must

A. Gain energy
B. Lose energy
C. Lose protons
D. Gain protons

Q.166 Magnetic field lines created by current carrying wire is

A. Helical
B. Elliptical
C. Hyperbolic
D. Circular

Q.167 Ripple factor of half wave rectifier is

A. 1.21
B. 0.8
C. 0.6
D. 0.4

Q.168 A metal rod of length 4 m , velocity 5m/s and magnetic field 0.5 T induced emf is

A. 10 V
B. 20V
C. 30V
D. 4V

Q.169 Find the resistance if voltage of the circuit is 45 volts and current 30 Amp?

A. 1.6 ohm
B. 1.5 ohm
C. 1.7 ohm
D. 1.8 ohm

Q.170 The phase angle between two points is 3 π. The distance between these points is 15 cm. What is the wavelength of the wave?

A. 30 cm
B. 45 cm
C. 5 cm
D. 10 cm

Q.171 Steady current does not change with respect to _____.

A. conductor
B. source
C. time
D. potential difference

Q.172 A bullet of mass 10 g leaves a rifle at an initial velocity of 1000 m/s and strikes earth at the same level with a velocity of 500 m/s. the work in overcoming the resistance of air will be:

A. 500J
B. 5000J
C. 3750J
D. 475J

Q.173 Voltage in secondary winding is _____ to current in secondary coil

A. Directly proportional
B. Inversely proportional
C. Directly squared proportional
D. Not enough information

Q.174 In a periodic wave, the distance between second and fifth crests is 15 cm, what is the wavelength of the wave?

A. 45 cm
B. 5 cm
C. 1/5 cm
D. 1/3 cm

Q.175 What is the de Broglie wavelength associated with an electron, accelerated through a potential difference of 200 volts?

A. 1nm
B. 0.5nm
C. 0.0056 nm
D. 0.086 nm

Q.176 Consider a car is travelling for one hour. Which of the following trips have the same average velocity?

A. Car travels 20 km due east and car travels 70 km due east

B. Car travels 40 km due east, then turns around and travels 20 km due west and car travels 20 km due east

C. Car travels 70 km due east and car travels 40 km due east, then turns around and travels 20 km due west

D. Car travels 30 km due west, then turns around and travels 30 km due east and car travels 40 km due east, then turns around and travels 20 km due west

Q.177 In a centre tap full wave rectifier if Vm is the peak voltage across the secondary of transformer, the maximum voltage across reverse bias is

A. Vm
B. $\frac{Vm}{\sqrt{2}}$
C. 2Vm
D. $\frac{Vm}{3}$

Q.178 C^{14} has half-life 5700 years. At the end of 11400 years, the actual amount left is

A. 0.0625 of original amount
B. 0.5 of original amount
C. 0.25 of original amount
D. 0.125 of original amount

Q.179 Consider two capacitors with capacitance 2μF and 4μF. With which type of connection will the 4μF capacitor have a greater amount of stored energy than the 2μF capacitor?

A. Series
B. Parallel
C. Either series nor parallel
D. Neither series nor parallel

Q.180 Galvanometer is an

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

ENGLISH

Q.181 They have been very close friends until they quarelled over a petty issue.

A B C D

A. They have been
B. very close friends
C. until they quarelled
D. over a petty issue.

Q.182 I _____ English since my childhood.

A. study
B. am studying
C. have been studying
D. studied

Q.183 Some of the books on the table _____ to me.

A. belong
B. belonging
C. belongs
D. was belong

Q.184 Have you _____ the examination?

A. Take
B. Took
C. Taken
D. Taking

Q.185 We went to the President as a last _____ .

A. Recourse
B. Resort
C. Resource
D. Resound

Q.186 Mrs Rose planning to do a course in Biology next week.

A. are planning
B. plans
C. with a plan
D. planning

Q.187 There was _____ article about pollution in _____ paper.

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

Q.188 Which verb is NOT in the present tense?

A. She listened
B. She talks
C. She waits
D. She eats

Q.189 Choose the correct spelling of the word

A. prettiest
B. prettyest
C. pretiest
D. preetiest

Q.190 Sameer _____ in the park every day.

A. run
B. runs
C. running
D. walk

Q.191 My parents _____ near Lahore.

A. living
B. are living
C. lives
D. live

Q.192 Sumaira was surprised when her boss didn't _____ the dinner they had at the restaurant.

A. buy
B. pay
C. pay for
D. spend

Q.193 The two machines _____ considerably. One has an electric motor, the other runs on oil.

A. Different
B. Differentiate
C. Differ
D. Difference

Q.194 Choose the correct sentence.

A. Did you know that they're leaving the city for good.
B. Did you know that they're leaving the city for good?
C. Did you know that the'yre leaving the city for good?
D. Did you know that theyre leaving the city for good.

Q.195 We have _____ small house in _____ village in _____ Netherlands.

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

Q.196 I'm now going to give you 10 ..... tips for running a really successful web site.

A. invaluable
B. valueless
C. unworthy
D. unprofitable

Q.197 Choose the correct sentence.

A. "Trust me, I know what I'm doing," Bilal said. "Your car is not hard to fix."
B. "Trust me, I know what I'm doing," Bilal said. "your car is not hard to fix."
C. "Trust me I know what Im doing," Bilal said. "Your car is not hard to fix."
D. "Trust me, I know what I'm doing," Bilal said. Your car is not hard to fix.

Q.198 They will bake the pies. Which tense is used here?

A. Present
B. Past
C. Future
D. Universal

Q.199 None of them ____ able to solve this question.

A. is
B. were
C. was
D. would be

Q.200 **If I had been thirsty (A) I would have (B) drank the lemonade (C) without waiting for (D) you.**

A. If i had been thirsty
B. I would have
C. drank the lemonade
D. without waiting for you.

LOGICAL REASONING

Q.201 **Statement**

The Statement There is an unprecedented increase in migration of villagers to urban areas as repeated crop failure has put them into precarious financial situation.

Courses of Action

I. The villagers should be provided with alternate source of income in their villages which will make them stay put.

II. The migrated villagers should be provided with jobs in the urban areas to help them survive

A. Both of them follows
B. None of them follows
C. Only I follows
D. Only II follows

Q.202 **Statement:**

I. There is unprecedented increase in the number of young unemployed in comparison to the previous year.

II. A large number of candidates submitted applications against an advertisement for the post of manager issued by a bank.

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 independent causes

Q.203 **Fact 1: A boy have a four cars**

Fact 2: Two of the cars are red

Fact 3: He have one sports car

If the above three statements are facts than which of the following statement will also be a

fact I. The boy have red sports car

II. He have 2 corolla

III. His favorite color is red

A. Only I and II
B. Only II
C. Only III
D. None of the statement is a fact

Q.204 **Statements: Some papers are pens. Angle is a paper.**

Conclusions:

I. Angle is not a pen.

II. Angle is a PEN

A. Only conclusion II follows
B. Either I or II follows
C. Neither I nor II follows
D. Both I and II follows

Q.205 Statement:

I. The farmers have decided against selling their Kharif crops to the government agencies.

II. The government has reduced the procurement price of Kharif crops starting from last month to the next six months.

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 independent causes

Q.206 A competition always has

A. Reward
B. Rivals
C. Spectators
D. Referee

Q.207 Which word does NOT belong with the others?

A. index
B. glossary
C. chapter
D. book

Q.208 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

Q.209 Directions: In each of the following questions a statement is given, followed by two conclusions. Give answer:

Statement: Without reforming the entire administrative system, we cannot eradicate corruption and prejudice from the society.

Assumptions:

I. The existence of corruption and prejudice is good.

II. There is enough flexibility to change the administrative system.

A. Only assumption I is implicit
B. Only assumption II is implicit
C. Either I or II is implicit
D. Both A and B

Q.210 Complete the series A25, B625, C15625, _____?

A. D390625
B. D364748
C. D390524
D. D390525