PMC PRACTICE TEST 09

CHEMISTRY

Q.1 **SN_2 reactions are _____?**

A. Nucleophilic unimolecular addition reactions

B. Nucleophilic bimolecular substitution reactions

C. Nucleophilic bimolecular addition reactions

D. Nucleophilic unimolecular substitution reactions

Q.2 **The sequence of amino acids combined in a peptide chain is called_____.**

A. Primary structure

B. Secondary structure

C. Tertiary structure

D. Quaternary structure

Q.3 **Which of the following shows Planck's quantum theory**

A. E=hcv

B. E=c/v

C. E = cv

D. None of these

Q.4 **Any thing under study during a chemical reaction in thermodynamics is called as_____?**

A. Analyte

B. System

C. Surrounding

D. Boundary

Q.5 **From which of the following sources acetic acid was first isolated ?**

A. Butter

B. Milk

C. Cheese

D. Vinegar

Q.6 **The smallest part of crystal lattice showing all the properties of a crystal is called as_____?**

A. Crystallite

B. Unit cell

C. Unit crystal

D. Monomer

Q.7 **Nyholm & Gillespie explains the shapes of molecules for**

A. Transition elements

B. Non transition elements

C. Only alkali metals

D. Alkaline earth metals

Q.8 **Equilibrium constant for Ideal gases in terms of partial pressure in denoted by**

A. Kc

B. K

C. Kp

D. None of these

Q.9 **In a Voltaic Cell Zinc Electrode is dipped in**

A. Copper Sulphate

B. Copper chloride

C. Zinc Chloride

D. Zinc Sulphate

Q.10 **In IUPAC naming alcohols are named as_____?**

A. Alkanal

B. Alkyl alcohols

C. Alkanol

D. Alkenol

Q.11 **Which one is natron?**

A. Na_2CO_3

B. $Na_2CO_3.1\ H_2O$

C. $Na_2CO_3.H2O$

D. NaHCO

Q.12 **Compounds attracted by applied strong magnetic field are called**

A. Diamagnetic

B. Paramagnetic

C. Good conductor

D. Ferromagnetic

Q.13 **The turbid liquid were also called liquid crystals due to presence of some degree of**

A. Heat

B. Order

C. Hotness

D. Coldness

Q.14 **The reactant which consumes completely in a reaction is known as _____reactant**

A. fractional

B. initial

C. limiting

D. minor

Q.15 **Work done on the system is**

A. Negative

B. depends upon Boundary Conditions

C. Positive

D. Zero

Q.16 How many d-block elements are present in the periodic table?

A. 40
C. 37
B. 23
D. 30

Q.17 Aldole consist of which functional group?

A. Aldehyde
B. Alcohol
C. Both A and B
D. Ketone

Q.18 The tendency of of an atom to attract a shared electron pair towards itself is called

A. Electron affinity
B. Ionization energy
C. Electronegativity
D. Polarity

Q.19 Rayon is_____?

A. Acetyl chloride
C. Alkyne
B. Alkene
D. Acetic acid

Q.20 Protein part attached with non-protein part in enzymes belongs to which class of proteins?

A. Simple
C. Derived
B. Conjugated/compound
D. All of these

Q.21 Formation of picric acid by phenols is called

A. Decomposition
B. Halogenation
C. Sulphonation
D. Nitration

Q.22 Which one of the following is not an example of fatty acid?

A. Palmitic acid
B. Stearic acid
C. Acetic acid
D. Linolenic acid

Q.23 A substance formed by reduction of phenol with Zn is

A. Picric acid
C. Cresol
B. Benzene
D. Carbolic acid

Q.24 Glass is an example of

A. Ionic solid
B. Covalent solid
C. Pseudo solid
D. Semisolid

Q.25 Which catalyst are used in catalytic cracking?

A. Silica, lime
C. Silica,Soda ash
B. Silica,alumina
D. Alumina,Pt

Q.26 Which one is for evaporation

A. Surface phenomena
B. Cause cooling
C. exothermic
D. continuous

Q.27 Phenol was obtained from _____ first time?

A. Coke
C. Aromatic compounds
B. Pitch
D. Coal tar

Q.28 The sum of cationic and anionic radius in a crystal lattice is equal to

A. inter-titian distance R
B. inter ionic distance R
C. inter- cationic distance R+
D. inter-anionic distance R-

Q.29 The rate of SN_2 reaction become doubled if_____?

A. Concentration of Nucleophile doubled
B. Concentration of Substrate doubled
C. Concentration of Substrate Tripled
D. Concentration of substrate remain same

Q.30 Which one of the following is most reactive?

A. Benzene
C. Ethene
B. Ethane
D. Ethyne

Q.31 The decrease in atomic radii is very prominent in

A. Second group
C. Higher groups
B. Second period
D. Higher periods

Q.32 The hydrogen gas bubbling into one molar solution of HCl has a pressure of

A. 2atm
D. 1 atm
B. 780 mmHg
C. 19 Psi

Q.33 **The atomic ratio of isomorphs of $ZnSO_4$, and $NiSO_4$ is**

A. 2:1
B. 2:01:04
C. 1:01:04
D. 1:1

Q.34 **A full stop may have_____ atoms present in it**

A. one million
C. one billion
B. two millions
D. two billions

Q.35 **Which of the following is protein digesting enzyme?**

A. Trypsin
C. Protease
B. Pepsin
D. All of these

Q.36 **The deliquescence is a property in which a solid**

A. Absorbs moisture and remains solid
B. Absorbs moisture and turns to liquid form
C. Loses water of crystallization
D. Increases the number of water of crystallization

Q.37 **What is the octane number of Iso-octane?**

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

Q.38 **Space among the liquids is _____?**

A. Lower than gases
C. Lower than solids
B. Higher than solids
D. Both A and B

Q.39 **In the rate equation R=k[A]a [B]b, order of reaction is**

A. a x b
C. b-a
B. a-b
D. a+b

Q.40 **More energy to remove an electron from_____?**

A. Half filled subshell
B. Completely Filled Subshell
C. Partially filled subshell
D. Both a and b

Q.41 **The shapes of subshells is _____if value of azimuthal quantum number 'l' is 2**

A. Spherical
B. Dumbbell
C. Complicated
D. All of these

Q.42 **A crystal is made up of**

A. Atoms
C. Molecules
B. Ions
D. All of these

Q.43 **Δn is the difference in number of moles of reactants and products in a reaction which is**

A. Solid Phase
B. Liquid phase
C. Gaseous Phase
D. Plasma Phase

Q.44 **What is the formula of chloroform?**

A. CH_3Cl
B. CH_2Cl_2
C. $CHCl_3$
D. CH_2Cl

Q.45 **In Down Cell anode is made up of**

A. Graphite
C. Iron
B. Copper
D. Silver

Q.46 **2-hydroxy propanoic acid is also called as_____?**

A. Stearic acid
C. Maleic acid
B. Butyric acid
D. Lactic acid

Q.47 **Which one of the following H-bond is strong?**

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

Q.48 **Which of the following is true about arenes?**

A. Low melting, and low boiling points
B. High melting, and high boiling points
C. Low melting, and high boiling points
D. High solubility in polar solvents

Q.49 **_____ enzyme catalyses the conversion of hexoses to 6- phosphate derivatives.**

A. Hexokinase
C. Fructokinase
B. Glucokinase
D. Malonic acid

Q.50 **Aldehydes and ketones can be obtained by the**

A. Reduction of alcohol
B. Oxidation of alcohol
C. Dehydration of alcohol
D. Hydrolysis of alcohol

Q.51 **Which of the following does not have sp2 hybridized orbital**

A. Acetone
B. Acetonitrile
C. Acetic acid
D. Acetamid

Q.52 **Oxygen is not released on heating which of the compounds?**

A. $(NH_4)2Cr2O_7$
B. $K_2Cr_2O_7$
C. $Zn(ClO_3)_2$
D. $KClO_3$

Q.53 **In exothermic reactions forward reactions need**

A. More Energy
B. No energy
C. Less Energy
D. Catalyst

Q.54 **How many electrons can occupy in 7th energy level of an atom. Calculate by using $2n^2$ formula**

A. 24
B. 5
C. 72
D. 98

Q.55 **Which metal is paramagnetic?**

A. Cr
B. Mn
C. Fe
D. All of these

Q.56 **The critical volume of O_2 is ___cm3/ mol**

A. $95.56g/dm^3$
B. $64.51g/dm^3$
C. $74.42g/dm^3$
D. $99.9g/dm^3$

PHYSICS

Q.57 **For a particular displacement how is the work done related to time**

A. Depend on time
B. Independent of time
C. Both of these
D. None of these

Q.58 **The number of vibrations executed in one second is called:**

A. Period
B. Frequency
C. amplitude
D. wavelength

Q.59 **In parallel voltage remains?**

A. Same
B. Different
C. Both of them
D. None of them

Q.60 **The value of coulomb constant is:**

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

Q.61 **When Ns>Np then transformer is**

A. Step up
B. Step down
C. Primary
D. Secondary

Q.62 **Magnetic field density outside the solenoid is**

A. Strong
B. Infinite
C. Negligible
D. None of these

Q.63 **SI unit of acceleration is:...**

A. m
B. m^2
C. m/s
D. m/s^2

Q.64 **For an object moving in a circle, the angle between linear velocity and the position vector is:**

A. 0 degrees
B. 30 degrees
C. 90 degrees
D. 60 degrees

Q.65 **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 inversionally proportional to –x

Q.66 **Calculate the work done in a resistor of 20 ohm carrying 5A of current in 3 hours.**

A. 1KWh
B. 1.5KWh
C. 2KWh
D. 3KWh

Q.67 **For atomic spectra, atomic gas or vapor at pressure which is much ___ than atmospheric pressure is excited**

A. greater
B. greater than equal to
C. less
D. none of these

Q.68 **Self-inductance varies number of turns in coil as**

A. N
C. N^2
B. N^3
D. 1/N

Q.69 **Displacement of an object in moving around a complete circle is**

A. $2\pi r$
C. πr
B. 2r
D. zero

Q.70 **Which of the following is the rapid process**

A. Conduction
C. Convection
B. Radiation
D. All of these

Q.71 **The capacitance of parallel plate capacitor can be written as:**

A. A ------- d
C. $A\varepsilon o$ ------- 2d
B. $A\varepsilon o$ ------- d
D. $A\varepsilon o$ ------- d^2

Q.72 **Electric generator converts _____ to _____ energy**

A. electric, mechanical
C. mechanical , potential
B. mechanical, electric
D. not enough information

Q.73 **Energy of photon is directly proportional to its :**

A. Temperature
C. Wave length
B. Frequency
D. None of the above

Q.74 **The convection process transfer heat faster than radiation**

A. it depends on condition
C. TRUE
B. not always
D. FALSE

Q.75 **Projectile when launched at 90 degree with respect to horizontal then its trajectory is**

A. Parabolic
C. Hyperbolic trajectory
B. Periodic
D. Linear

Q.76 **An ambulance siren emits a sound of frequency 1800 Hz. The speed of sound in air is 330 m/s. The ambulance moves towards a stationary observer at a constant speed of 50 m/s. What is the frequency heard by the observer?**

A. (1800 × 290)/ 330
B. (1800 × 330) / 370
C. (1800 × 330) / 280
D. (1800 × 330) / 380

Q.77 **Whenever a transverse wave, travelling in a rarer medium, encounters a denser medium. It...**

A. Bounces back such that the direction of its displacement remains same
B. Bounces back such that the direction of its displacement is reversed
C. Travels into second medium and the direction of its displacement is reversed
D. Travels into second medium and the direction of its displacement remains same

Q.78 **In Young's double slit experiment, fringe spacing increases if:**

A. Red light is used as compared to blue light
B. X-ray is used as compared to blue light
C. Violet light is used as compared to blue light
D. Ultraviolet light is used as compared to blue light

Q.79 **Work has the dimension as that of**

A. Torque
B. Momentum
C. Power
D. Angular momentum

Q.80 **A test charge of 23 μC is at a point P where an external electric field is directed to the left and has a magnitude of 3.1 x106 N/C. If the test charge is replaced with another test charge of 13 μC, what happens to the external electric field at P?**

A. it remains same
B. it reverses direction
C. it changes in a way that cannot be determined
D. 3.1×10^5 N/C

Q.81 **Work done in a isobaric process is given by**

A. PdT
B. PdV
C. VdP
D. P^2Dv

Q.82 **Angular velocity cannot be**

A. zero
B. negative
C. infinite
D. linear

Q.83 **How much potential difference is required for establishing steady current?**

A. Minimum
B. Constant
C. Maximum
D. Varying

Q.84 **A rectangular loop of dimension 3 cm by 5 cm is placed perpendicular in uniform magnetic field of 0.1 T, find the magnetic flux through the loop**

A. 1.5 wb
B. 0.15 wb
C. 0.015 wb
D. 15 wb

Q.85 **A thermodynamic system undergoes a process in which its internal energy decreases by 300 J. If at the same time 120 J of work is done on the system, find the heat lost by the system**

A. -420 J
B. 420 J
C. 80 J
D. -80 J

Q.86 **If system changes from a state P1 V1 to P2V2 by two paths then quantity which remains unchanged is**

A. Dq
B. dW
C. dQ-dW
D. dQ+dW

Q.87 **If the conductor resistance is 50 ohm and the current passing through it is 5 A. What is the value of potential difference?**

A. 150V
B. 250V
C. 50V
D. 15V

Q.88 **An electron is moving along the line of force in magnetic field B with velocity u , then maximum force acting on the charge is given by**

A. Bue
B. Bq/u
C. Bu/q
D. 0

Q.89 **An arc of length equal to the circumference of a circle subtends an angle?**

A. π radian
B. 2π radian
C. π/2 radian
D. 4π radian

Q.90 **The dimensions of angular velocity are**

A. $[LT^{-1}]$
B. [LT]
C. $[LT^{-2}]$
D. $[T^{-1}]$

Q.91 **The electron emitted in β – radiation originates from where?**

A. Inner orbits of atom
B. Free electrons existing in nuclei
C. The decay of a neutron in a nuclei
D. Photon escaping from a nuclei

Q.92 **If momentum is increased by 20% then K.E. increase by :**

A. 0.44
B. 0.55
C. 0.66
D. 0.77

Q.93 **The momentum of the moving photon is**

A. zero
B. hλ
C. λ/h
D. h/λ

Q.94 **The wavelength of beta rays is measured by**

A. Interference
B. Polarization
C. Absorption
D. Diffraction

Q.95 **In step down transformer _____ is decreased in secondary coils**

A. electric field
B. magnetic field
C. number of turns
D. none of these

Q.96 **One kcal =**

A. 4.18 J
B. 4180 J
C. 2.09 J
D. 2090 J

Q.97 **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

Q.98 Which is not the result of special theory of relativity

A. Length contraction
C. Time dilation
B. Space - time transformation
D. Mass variation

Q.99 The distance between two point charges if halved, the force between them would be:....

A. Half
C. One fourth
B. Double
D. Four times

Q.100 In a periodic wave, the distance between a crest and the next consecutive trough is 15 cm. What is the wavelength of the wave?

A. 10 cm
C. 7.5 cm
B. 5 cm
D. 30 cm

Q.101 A cyclist come to skidding stop in 10 m, the force on the cycle due to the road is 200 N and opposite to the motion. how much work does the road do on the cycle

A. 2000 J
C. 0
B. -2000 J
D. 200 J

Q.102 The image received of absorbed x rays is

A. Inverted
C. Any of a or b
B. Real
D. Virtual

Q.103 Which one is the correct statement about selenium?

A. Selenium is a good conductor
B. Selenium is a good insulator
C. Selenium is an insulator in the dark and becomes conductor when exposed to light
D. Selenium is an conductor in the dark and becomes insulator when exposed to light

Q.104 In annihilation process..... are produced :

A. Positron
C. Electrons
B. Photons
D. B & C are correct

Q.105 Resistivity of a wire is ___ ohm-m if 0.75 A current flows through it by applying 1.5 V potential difference, take length and cross section as 5m and 2.5×10^{-7} m^2.

A. 1×10^{-7}
B. 2.63×10^{-8}
C. 19×10^{-8}
D. 7.85×10^{-8}

Q.106 After certain lapse of time, the fraction of radioactive polonium is found to be 12.5% of initial quantity. If the half life of polonium is 138 days, then duration of time lapse is.....days

A. 34.5
B. 276
C. 414
D. 125

Q.107 At every point of trajectory of projectile which of the following quantities is always zero

A. Horizontal velocity
C. Vertical acceleration
B. Total velocity
D. Horizontal acceleration

Q.108 The angular speed of a particle, moving in a circle of radius 20 cm, increases from 2 rad/s to 40 rad/s in 9s the ratio of its centripetal acceleration to tangential acceleration at the end of 19 s is,

A. 400:1
C. 800:1
B. 14:20
D. 7:40

Q.109 What is the wavelength of the wave if the phase angle between two points of the medium is 3pi/4 and they are separated through a distance of 3 cm?

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

Q.110 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

Q.111 A real transformer does not change

A. Voltage level
C. Power level
B. Current level
D. Frequency level

Q.112 A reversible carnot engine converts 1/6th of heat into input work. When the temperature of sink is reduced by 62 degree C then efficiency is doubled then temperature of source and sink is

A. 80 C ,37 C
B. 99 C , 30C
C. 99C ,25C
D. 99C , 37C

BIOLOGY

Q.113 Roots of a plant show which of the following?

A. Positive phototropism and negative geotropism
B. Negative tactic movement and positive tropic movement
C. Positive geotropism of stem and roots
D. Negative phototropism and positive geotropism

Q.114 Which one of the following biomolecules is most abundant in animals?

A. Starch
B. Glycogen
C. Cellulose
D. Both a and b

Q.115 The selection for a trait on one extreme is called which of the following?

A. Natural selection
B. Directional selection
C. Stabilizing selection
D. all of these

Q.116 What is the size of Parvovirus?

A. 200 nm
B. 20nm
C. 30 nm
D. 100 nm

Q.117 A nucleotide can also said as

A. Chromatic body
B. Nuclear region
C. Nuclear body
D. All of Above

Q.118 The dense fluid filled region in the chloroplast is?

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

Q.119 The fate of each blastomere is foretold. What will that cleavage be?

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

Q.120 Competitive inhibitors and real substrate often have similar?

A. Structure
B. Chemical properties
C. Physical properties
D. None of these

Q.121 The phage which causes lysis of the host cell is known as?

A. Lytic Phage
B. Lysogenic phage
C. Prophage
D. Bacteriophage

Q.122 The inflammation of bronchi or bronchioles is known as

A. emphysema
B. asthma
C. pneumonia
D. bronchitis

Q.123 If an individual does not reproduce then it's degree of fitness is?

A. 100
B. 50
C. 40
D. 0

Q.124 The function of vocal cords is to help in:

A. Voice production
B. Energy production
C. Glucose production
D. Air production

Q.125 The name animal is derived from what word?

A. Aname
B. Anemia
C. Anima
D. None of these

Q.126 Irreversible modifications require the synthesis of which of the following?

A. Enzymes
B. Carbohydrates
C. Vitamins
D. Proteins

Q.127 Which of the following is a oviparous animal?

A. Pidgeon
B. Elephant
C. Sheep
D. Humans

Q.128 The oxygen and carbon dioxide crosses the plasma membrane by the process of?

A. Active diffusion
B. Pacilitated diffusion
C. Passive diffusion
D. Random diffusion

Q.129 If the 1 amino acid is joined together by peptide bonds, it becomes

A. Protein
B. Globular protein
C. Functional protein
D. Secretive protein

Q.130 Maximum capacity of hemoglobin to absorb oxygen is:

A. 19.6ml/100 ml blood
C. 25 ml/100 ml blood
B. 20 ml/100 ml blood
D. 30 ml/100 ml blood

Q.131 Which one forms the raw material for coenzymes?

A. Vitamins
C. Lipids
B. Carbohydrates
D. Proteins

Q.132 The largest part of the human brain is the

A. Cerebrum
C. Hypothalamus
B. Thalamus
D. Limbic system

Q.133 Eukaryotes can share which of the following structures with prokaryotes?

A. Cell wall
C. Golgi
B. Nucleoid
D. Mitochondria

Q.134 Phenotype represents which of the following?

A. Morphology
C. Genetics
B. Physiology
D. All of these

Q.135 Which of the following is an exception to cell theory?

A. Bacteria
C. Protists
B. Viruses
D. Protozoans

Q.136 Which characteristic is not of identical twins?

A. Produced by separation of two blastomeres
B. Produced asexually
C. Produced when embryo is at two cell stages
D. Have different genetic makeup

Q.137 Which type of viruses infect E. Coli bacteria?

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

Q.138 The flow of lymph is always towards -----

A. pancreatic duct
B. bile duct
C. thoracic duct
D. parotid duct

Q.139 Which of the following are the first group of invertebrates which have developed a closed circulatory system?

A. Nematodes
B. Arthropods
C. Annelids
D. Molluscs

Q.140 Incomplete dominance is also termed as which of the following?

A. Half dominance
B. Codominance
C. Partial dominance
D. None of these

Q.141 Cortisol brings about an increase in blood glucose level mainly by its production from protein and by?

A. Glucagon
B. Estrogen
C. Insulin
D. Progesterone

Q.142 Which of the following characteristics make plasmid DNA useful for researchers?

A. Readily incorporate cloned DNA
B. Capable of autonomous replication
C. Capable of being isolated from genomic DNA
D. All of these

Q.143 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
C. Inhibition
B. Composition
D. Saturation

Q.144 Flagella are basically composed of a

A. Protein
C. Enzyme
B. Chemical
D. None of above

Q.145 In what year did WHO declare that smallpox was completely eradicated?

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

Q.146 what is the microscope's ability to distinguish between separate objects that are close together?

A. Magnification
B. Contrast
C. Resolving power
D. Scanning power

Q.147 What does $NADPH_2$ provide during photosynthesis?

A. Energized electron
B. Energy
C. Uncharged electron
D. All of these

Q.148 Shell of egg is leathery in appearance in which of the following?

A. Amphibians
B. Birds
C. Prototherians
D. Reptiles

Q.149 Homozygous chromosomes include which of the following?

A. Diploid cells
B. Polyploid cells
C. Both a and b
D. None of these

Q.150 During the menstrual cycle, which of the following events happens if a released egg does not become fertilised?

A. The lining of the womb wall stays built up.
B. The lining of the womb wall builds up again.
C. Another egg is immediately released.
D. The lining of the womb wall breaks down.

Q.151 Animals like starfish have small groups of neurons in each arm connected to a ring of neurons in the centre. This type of nervous system is called _____.

A. Centralized nervous system
B. Partially centralized nervous system
C. Diffuse nervous system
D. Partially diffuse nervous system

Q.152 Which structure of protein gives information about number and sequence of amino acids in it?

A. Primary structure
B. Secondary structure
C. Tertiary structure
D. Quaternary structure

Q.153 Water vapor exits and CO_2 enters a leaf through the

A. Stomata
B. Grana
C. Porphyrin ring
D. Photons

Q.154 Viruses are how much smaller than bacteria?

A. 20 to 2000 times
B. 10 to 1000 times
C. 500 times
D. 3000 times

Q.155 The difference in photosynthesis spectrum and actin spectrum occurs due to?

A. Carbon dioxide
B. Oxygen
C. Carotenoids
D. Wavelength

Q.156 Which of the following are important points of Lamarck's theory?

A. Use and disuse of organs
B. Inheritance of acquired characters
C. Natural selection
D. Both a and b

Q.157 The female gametes are most commonly referred as?

A. Egg
B. Ova
C. Ovum
D. All of these

Q.158 The nasal cavity opens outside of the kind of openings that are known as

A. Pharynx
B. Bronchioles
C. Nostrils
D. None of these

Q.159 The oxidation phase of glycolysis is?

A. Energy consuming
B. Energy yielding
C. Net neutralization of energy
D. Both a and c

Q.160 What occurs when the thin actin and thick myosin filaments slide past each other?

A. Muscle relaxation
B. Muscle contraction
C. Muscle twitch
D. None of these

Q.161 The muscle which moves a body part towards the midline of the body is:

A.Flexor muscles
B. Extensor muscles
C. Adductor muscles
D. Abductor muscles

Q.162 Which of the following scientists hypothesized that organisms can pass down traits acquired during their lifetimes?

A. Lamark
B. Darwin
C. Mendel
D. Linnaeus

Q.163 A three-dimensional cavity bearing a specific charge by which the enzyme reacts with its substrate is called?

A. Active site
B. Binding site
C. Catalytic site
D. Allosteric site

Q.164 The fluidity of the plasma membrane increases with which of the following?

A. Increase in saturated fatty acids in the membrane
B. Increase in glycolipid content in the membrane
C. Increase in phospholipid content in the membrane
D. Increase in unsaturated fatty acids in the membrane

Q.165 The rate of reaction is directly proportional to the concentration of an enzyme which statement is incorrect in this respect?

A. If the concentration is doubled the rate will become one fold
B. If the concentration is doubled the rate will become two fold
C. This relation is for unlimited time period with unlimited enzyme concentration
D. All of these

Q.166 The skeleton of sponges is made up of which of the following?

A. Calcium
B. Silica
C. Both a and b
D. None of these

Q.167 The brain part that carries sensory information to the limbic system and cerebrum is

A. Medulla
C. Hypothalamus
B. Thalamus
D. Corpus callosum

Q.168 All of the following statements are true regarding the attachment or adsorption of the virion to the host cell EXCEPT that:

A. For naked virions, the surface capsid proteins are responsible for binding to a specific cell receptor.
B. For enveloped viruses, the spikes are responsible for binding to a specific cell receptor.
C. Cell lacking a receptor for a specific virus is not infected by that virus.
D. All of the above

Q.169 Which of the modes of cellular transport requires energy?

A. Active transport
C. Passive transport
B. Osmosis
D. Diffusion

Q.170 The lungs of lungfish are thought to have evolved from:

A. The swim bladder of cartilaginous fish.
B. The swim bladder of bony fish.
C. The swin bladder of lobe-finned fish
D. They evolved independently.

Q.171 The soluble sap of the nucleus in a plant cell is called?

A. Cytoplasm
C. Protoplasm
B. Nucleoplasm
D. Protoplast

Q.172 Esters of fatty acids with higher alcohols other than glycerol are called___

A. Waxe
B. Fats
C. Both (A) and (B)
D. None of these

Q.173 The only promoter of leaf senescence in the following plant hormones is?

A. Gibberellins
C. Auxins
B. Cytokinins
D. Abscisic acid

Q.174 Most non-enveloped DNA viruses assemble their nucleocapsid in the

A. Cytoplasm
C. Microtubules
B. Nucleus
D. Golgicomplex

Q.175 The nodules of lymphoid tissue found in the wall of the intestinal tract are termed as:

A. Grave's region
B. Hashimoto's nodes
C. Peyer's patches
D. DiGeorge's nodes

Q.176 Which of the following statement about the head of a chlorophyll molecule is incorrect?

A. It is a porphyrin ring or tetrapyrrole ring structure
B. It is flat, square and light absorbing
C. Composed of carbon and nitrogen atoms with Magnesium as central metal ion, which is coordinated with nitrogen.

D. It is hydrophobic

Q.177 Phosphofructokinases enzyme converts fructose-6-phosphate into___

A. Fructose-1,4-phosphate
C. Bisphosphate
B. Fructose-1,6-bisphosphate
D. Fructose

Q.178 Which of the following is NOT a class of enzyme?

A. Ligase
C. Isomerase
B. Hydrolyse
D. Pyrimidine complex

Q.179 Example of a homologous organ is represented best by which of the following?

A. Wing of an insect, wing of a bird
B. Leg of a dog, leg of a spider
C. The arm of a human, wing of a bird
D. All of these

Q.180 Which of the following is non-cellular in most cases in animals?

A. Sclerenchyma
C. Mesoderm
B. Chlorenchyma
D. Mesenchyme

ENGLISH

Q.181 Choose the correct sentence.

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

Q.182 When the dentist came in (A), my tooth was stopped aching (B)/ out of fear (C) that I might loose my tooth. (D)

A. When the dentist came in
B. My tooth was stopped aching
C. Out of fear
D. That i might loose my tooth.

Q.183 It ____ now.

A. Rains
C. was raining
B. is raining
D. has been raining

Q.184 Tweezers ____ always useful to handle small objects.

A. is
C. will
B. are
D. may

Q.185 _____ it was raining, he went out without a raincoat.

A. Even
C. Unless
B. Since
D. Although

Q.186 Choose the correct sentence.

A. Didnt you hear that the exam was changed to next week.
B. Didn't you hear, that the exam was changed to next week?
C. Didn't you hear that the exam was changed to next week?
D. Did'nt you hear that the exam was changed to next week?

Q.187 Choose the future indefinite tense form of the given sentence. "The parcel has been delivered."

A. The parcel had been delivered.
B. The parcel will be delivered.
C. The parcel was delivered.
D. The parcel would have been delivered.

Q.188 A container of nuts and bolts _____ found in the cellar.

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

Q.189 A ship (A)/ laden with mechandise (B)/ got drowned (C)/ in the Pacific Ocean. (D)

A. A ship
C. got drowned
B. laden with mechandise
D. in the Pacific Ocean.

Q.190 My father _____ (buy) us popcorn and orange juice.

A. buy
C. bought
B. will buy
D. have bought

Q.191 The officer is angry (A)/ on the clerk (b)/ for not completing the job (C)/ on time. (D)

A. The officer is angry
C. for not completing the job
B. on the clerk
D. on time.

Q.192 I _____ (take) the medicine as prescribed by the doctor for a week now.

A. take
B. would have taken
C. have been taking
D. have had been taking

Q.193 Neither of the paintings _____ (is) sold.

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

Q.194 The samples on the tray in the lab _____ testing.

A. need
C. needing
B. needs
D. needed

Q.195 Can you _____ the tea and I'll get the cake myself.

A. depart
B. disturb
C. pour
D. feed

Q.196 Everyone hopes to get a job with prospects ---- promotion, but not many people manage to do so.

A. on
C. in
B. of
D. around

Q.197 There has been an increase in the price of oil in _____ weeks.

A. just passed
C. yesteradys
B. some
D. recent

Q.198 Choose the correct tense?

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

Q.199 There is _____institution for _____ blind in this city.

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

Q.200 It was a good piece of land. They got quite ..... by using it to cultivate the much-needed industrial plants.

A. tranquil
B. peaceful
C. responsible
D. prosperous

LOGICAL REASONING

Q.201 Statements: All fish are tortoise. No tortoise is a crocodile.

Conclusions: I. No crocodile is a fish. **II. No fish is a crocodile.**

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

Q.202 Fact 1 Some pens don't write Fact 2 Only blue pens write Fact 3 some writing utensils are pens If the above three statements are facts than which of the following statement will also be a fact I. Some writing utensils don't write II. Some writing utensils are blue III. Some blue writing utensils don't write

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

Q.203 Statement: There is sharp decline in the production of oil seeds this year. The government has decided to increase the import quantum of edible oil.

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

Q.204 Which letter lies in the middle of word Quality?

A. I
B. A
C. U
D. Y

Q.205 Look at this series: 7, 10, 8, 11, 9, 12, … What number should come next?

A. 7
B. 10
C. 12
D. 13

Q.206 Statement The availability of imported fruits has increased in the indigenous market and so the demand for indigenous fruits has been decreased. I. To help the indigenous producers of fruits, the Government should impose high import duty on these fruits, even if these are not of good quality. II. The fruit vendors should stop selling imported fruits. So that the demand for indigenous fruits would be increased.

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

Q.207 If $a - b = 3$ and $a^2 + b^2 = 29$, find the value of ab.

A. 10
C. 15
B. 12
D. Both A and B

Q.208 Statement:

Should there be a total ban on tobacco products and smoking in India?

Arguments:

(I) Yes. It is wrong to smoke away millions of monies.

(II) No. It will throw thousands of workers in the tobacco industry out of employment.

(III) No. The government will lose huge amount of money as it will not earn by way of taxes on these products.

A. None is strong
C. Only II is strong
B. Only I and II are strong
D. Only II and III are strong

Q.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
C. Rachel
B. Ruby
D. Max

Q.210 Country with the highest muslim population is _____

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

PMC PRACTICE TEST 09

CHEMISTRY

Q.1 **SN_2 reactions are _____?**

A. Nucleophilic unimolecular addition reactions
B. Nucleophilic bimolecular substitution reactions
C. Nucleophilic bimolecular addition reactions
D. Nucleophilic unimolecular substitution reactions

Q.2 **The sequence of amino acids combined in a peptide chain is called_____.**

A. Primary structure
B. Secondary structure
C. Tertiary structure
D. Quaternary structure

Q.3 **Which of the following shows Planck's quantum theory**

A. E=hcv
B. E=c/v
C. E = cv
D. None of these

Q.4 **Any thing under study during a chemical reaction in thermodynamics is called as_____?**

A. Analyte
B. System
C. Surrounding
D. Boundary

Q.5 **From which of the following sources acetic acid was first isolated ?**

A. Butter
B. Milk
C. Cheese
D. Vinegar

Q.6 **The smallest part of crystal lattice showing all the properties of a crystal is called as_____?**

A. Crystallite
B. Unit cell
C. Unit crystal
D. Monomer

Q.7 **Nyholm & Gillespie explains the shapes of molecules for**

A. Transition elements
B. Non transition elements
C. Only alkali metals
D. Alkaline earth metals

Q.8 **Equilibrium constant for Ideal gases in terms of partial pressure in denoted by**

A. Kc
B. K
C. Kp
D. None of these

Q.9 **In a Voltaic Cell Zinc Electrode is dipped in**

A. Copper Sulphate
B. Copper chloride
C. Zinc Chloride
D. Zinc Sulphate

Q.10 **In IUPAC naming alcohols are named as_____?**

A. Alkanal
B. Alkyl alcohols
C. Alkanol
D. Alkenol

Q.11 **Which one is natron?**

A. Na_2CO_3
B. $Na_2CO_3.1\ H_2O$
C. $Na_2CO_3.H2O$
D. NaHCO

Q.12 **Compounds attracted by applied strong magnetic field are called**

A. Diamagnetic
B. Paramagnetic
C. Good conductor
D. Ferromagnetic

Q.13 **The turbid liquid were also called liquid crystals due to presence of some degree of**

A. Heat
B. Order
C. Hotness
D. Coldness

Q.14 **The reactant which consumes completely in a reaction is known as ____reactant**

A. fractional
B. initial
C. limiting
D. minor

Q.15 **Work done on the system is**

A. Negative
B. depends upon Boundary Conditions
C. Positive
D. Zero

Q.16 How many d-block elements are present in the periodic table?

A. 40
C. 37
B. 23
D. 30

Q.17 Aldole consist of which functional group?

A. Aldehyde
C. Both a and b
B. Alcohol
D. Ketone

Q.18 The tendency of of an atom to attract a shared electron pair towards itself is called

A. Electron affinity
C. Electronegativity
B. Ionization energy
D. Polarity

Q.19 Rayon is_____?

A. Acetyl chloride
C. Alkyne
B. Alkene
D. Acetic acid

Q.20 Protein part attached with non-protein part in enzymes belongs to which class of proteins?

A. Simple
C. Derived
B. Conjugated/compound
D. All of these

Q.21 Formation of picric acid by phenols is called

A. Decomposition
C. Sulphonation
B. Halogenation
D. Nitration

Q.22 Which one of the following is not an example of fatty acid?

A. Palmitic acid
C. Acetic acid
B. Stearic acid
D. Linolenic acid

Q.23 A substance formed by reduction of phenol with Zn is

A. Picric acid
C. Cresol
B. Benzene
D. Carbolic acid

Q.24 Glass is an example of

A. Ionic solid
C. Pseudo solid
B. Covalent solid
D. Semisolid

Q.25 Which catalyst are used in catalytic cracking?

A. Silica, lime
C. Silica,Soda ash
B. Silica,alumina
D. Alumina,Pt

Q.26 Which one is for evaporation

A. Surface phenomena
C. exothermic
B. Cause cooling
D. continuous

Q.27 Phenol was obtained from _____ first time?

A. Coke
C. Aromatic compounds
B. Pitch
D. Coal tar

Q.28 The sum of cationic and anionic radius in a crystal lattice is equal to

A. inter-titian distance R
B. inter ionic distance R
C. inter- cationic distance R+
D. inter-anionic distance R-

Q.29 The rate of SN_2 reaction become doubled if_____?

A. Concentration of Nucleophile doubled
B. Concentration of Substrate doubled
C. Concentration of Substrate Tripled
D. Concentration of substrate remain same

Q.30 Which one of the following is most reactive?

A. Benzene
C. Ethene
B. Ethane
D. Ethyne

Q.31 The decrease in atomic radii is very prominent in

A. Second group
C. Higher groups
B. Second period
D. Higher periods

Q.32 The hydrogen gas bubbling into one molar solution of HCl has a pressure of

A. 2atm
C. 19 Psi
B. 780 mmHg
D. 1 atm

Q.33 The atomic ratio of isomorphs of ZnSO4, and NiSO4 is

A. 2:1
C. 1:01:04
B. 2:01:04
D. 1:1

Q.34 A full stop may have_____ atoms present in it

A. one million
B. two millions

C. one billion
D. two billions

Q.35 Which of the following is protein digesting enzyme?
A. Trypsin
B. Pepsin
C. Protease
D. All of these

Q.36 The deliquescence is a property in which a solid
A. Absorbs moisture and remains solid
B. Absorbs moisture and turns to liquid form
C. Loses water of crystallization
D. Increases the number of water of crystallization

Q.37 What is the octane number of Iso-octane?
A. 40
B. 100
C. 0
D. 2

Q.38 Space among the liquids is _____?
A. Lower than gases
B. Higher than solids
C. Lower than solids
D. Both A and B

Q.39 In the rate equation R=k[A]a [B]b, order of reaction is
A. a x b
B. a-b
C. b-a
D. a+b

Q.40 More energy to remove an electron from_____?
A. Half filled subshell
B. Completely Filled Subshell
C. Partially filled subshell
D. Both a and b

Q.41 The shapes of subshells is _if value of azimuthal quantum number 'l' is 2
A. Spherical
B. Dumbbell
C. Complicated
D. All of these

Q.42 A crystal is made up of
A. Atoms
B. Ions
C. Molecules
D. All of these

Q.43 Δn is the difference in number of moles of reactants and products in a reaction which is
A. Solid Phase
B. Liquid phase
C. Gaseous Phase
D. Plasma Phase

Q.44 What is the formula of chloroform?
A. CH_3Cl
B. CH_2Cl_2
C. $CHCl_3$
D. CH_2Cl

Q.45 In Down Cell anode is made up of
A. Graphite
B. Copper
C. Iron
D. Silver

Q.46 2-hydroxy propanoic acid is also called as_____?
A. Stearic acid
B. Butyric acid
C. Maleic acid
D. Lactic acid

Q.47 Which one of the following H-bond is strong?
A. O-H
B. N-H
C. F-H
D. Cl-H

Q.48 Which of the following is true about arenes?
A. Low melting, and low boiling points
B. High melting, and high boiling points
C. Low melting, and high boiling points
D. High solubility in polar solvents

Q.49 _____ enzyme catalyses the conversion of hexoses to 6- phosphate derivatives.
A. Hexokinase
B. Glucokinase
C. Fructokinase
D. Malonic acid

Q.50 Aldehydes and ketones can be obtained by the
A. Reduction of alcohol
B. Oxidation of alcohol
C. Dehydration of alcohol
D. Hydrolysis of alcohol

Q.51 Which of the following does not have sp2 hybridized orbital
A. Acetone
B. Acetonitrile
C. Acetic acid
D. Acetamide

Q.52 Oxygen is not released on heating which of the compounds?

A. $(NH_4)2Cr2O_7$ C. $Zn(ClO_3)_2$

B. $K_2Cr_2O_7$ D. $KClO_3$

Q.53 In exothermic reactions forward reactions need

A. More Energy C. Less Energy

B. No energy D. Catalyst

Q.54 How many electrons can occupy in 7th energy level of an atom. Calculate by using $2n^2$ formula

A. 24 C. 72

B. 5 D. 98

Q.55 Which metal is paramagnetic?

A. Cr C. Fe

B. Mn D. All of these

Q.56 The critical volume of O_2 is ___cm3/ mol

A. $95.56g/dm^3$ C. $74.42g/dm^3$

B. $64.51g/dm^3$ D. $99.9g/dm^3$

PHYSICS

Q.57 For a particular displacement how is the work done related to time

A. Depend on time C. Both of these

B. Independent of time D. None of these

Q.58 The number of vibrations executed in one second is called:

A. Period C. amplitude

B. Frequency D. wavelength

Q.59 In parallel voltage remains?

A. Same C. Both of them

B. Different D. None of them

Q.60 The value of coulomb constant is:

A. $9 \times 10^9\ Nm^2$ C. $9 \times 10^{-9}\ Nm^2 / C^2$

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

Q.61 When Ns>Np then transformer is

A. Step up B. Step down

C. Primary D. Secondary

Q.62 Magnetic field density outside the solenoid is

A. Strong B. Infinite

C. Negligible D. None of these

Q.63 SI unit of acceleration is:...

A. m C. m/s

B. m^2 D. m/s^2

Q.64 For an object moving in a circle, the angle between linear velocity and the position vector is:

A. 0 degrees C. 90 degrees

B. 30 degrees D. 60 degrees

Q.65 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 inversionally proportional to –x

Q.66 Calculate the work done in a resistor of 20 ohm carrying 5A of current in 3 hours.

A. 1KWh C. 2KWh

B. 1.5KWh D. 3KWh

Q.67 For atomic spectra, atomic gas or vapor at pressure which is much ___ than atmospheric pressure is excited

A. greater C. less

B. greater than equal to D. none of these

Q.68 Self-inductance varies number of turns in coil as

A. N C. N^2

B. N^3 D. 1/N

Q.69 **Displacement of an object in moving around a complete circle is**

A. $2\pi r$
B. $2r$
C. πr
D. zero

Q.70 **Which of the following is the rapid process**

A. Conduction
B. Radiation
C. Convection
D. All of these

Q.71 **The capacitance of parallel plate capacitor can be written as:**

A. A ------- d
B. $A\varepsilon o$ ------- d
C. $A\varepsilon o$ ------- 2d
D. $A\varepsilon o$ ------- d^2

Q.72 **Electric generator converts _____ to _____ energy**

A. electric, mechanical
B. mechanical , electric
C. mechanical , potential
D. not enough information

Q.73 **Energy of photon is directly proportional to its :**

A. Temperature
B. Frequency
C. Wave length
D. None of the above

Q.74 **The convection process transfer heat faster than radiation**

A. it depends on condition
B. not always
C. TRUE
D. FALSE

Q.75 **Projectile when launched at 90 degree with respect to horizontal then its trajectory is**

A. Parabolic
B. Periodic
C. Hyperbolic trajectory
D. Linear

Q.76 **An ambulance siren emits a sound of frequency 1800 Hz. The speed of sound in air is 330 m/s. The ambulance moves towards a stationary observer at a constant speed of 50 m/s. What is the frequency heard by the observer?**

A. (1800 × 290)/ 330
B. (1800 × 330) / 370
C. (1800 × 330) / 280
D. (1800 × 330) / 380

Q.77 **Whenever a transverse wave, travelling in a rarer medium, encounters a denser medium. It...**

A. Bounces back such that the direction of its displacement remains same
B. Bounces back such that the direction of its displacement is reversed
C. Travels into second medium and the direction of its displacement is reversed
D. Travels into second medium and the direction of its displacement remains same

Q.78 **In Young's double slit experiment, fringe spacing increases if:**

A. Red light is used as compared to blue light
B. X-ray is used as compared to blue light
C. Violet light is used as compared to blue light
D. Ultraviolet light is used as compared to blue light

Q.79 **Work has the dimension as that of**

A. Torque
B. Momentum
C. Power
D. Angular momentum

Q.80 **A test charge of 23 μC is at a point P where an external electric field is directed to the left and has a magnitude of 3.1 x106 N/C. If the test charge is replaced with another test charge of 13 μC, what happens to the external electric field at P?**

A. it remains same
B. it reverses direction
C. it changes in a way that cannot be determined
D. 3.1×10^5 N/C

Q.81 **Work done in a isobaric process is given by**

A. PdT
B. PdV
C. VdP
D. P^2Dv

Q.82 **Angular velocity cannot be**

A. zero
B. negative
C. infinite
D. linear

Q.83 **How much potential difference is required for establishing steady current?**

A. Minimum
B. Constant
C. Maximum
D. Varying

Q.84 **A rectangular loop of dimension 3 cm by 5 cm is placed perpendicular in uniform magnetic field of 0.1 T, find the magnetic flux through the loop**

A. 1.5 wb
B. 0.15 wb
C. 0.015 wb
D. 15 wb

Q.85 **A thermodynamic system undergoes a process in which its internal energy decreases by 300 J. If at the same time 120 J of work is done on the system, find the heat lost by the system**

A. -420 J
B. 420 J
C. 80 J
D. -80 J

Q.86 **If system changes from a state P1 V1 to P2V2 by two paths then quantity which remains unchanged is**

A. dQ
B. dW
C. dQ-dW
D. dQ+dW

Q.87 **If the conductor resistance is 50 ohm and the current passing through it is 5 A. What is the value of potential difference?**

A. 150V
B. 250V
C. 50V
D. 15V

Q.88 **An electron is moving along the line of force in magnetic field B with velocity u , then maximum force acting on the charge is given by**

A. Bue
B. Bq/u
C. Bu/q
D. 0

Q.89 **An arc of length equal to the circumference of a circle subtends an angle?**

A. π radian
B. 2π radian
C. π/2 radian
D. 4π radian

Q.90 **The dimensions of angular velocity are**

A. $[LT^{-1}]$
B. [LT]
C. $[LT^{-2}]$
D. $[T^{-1}]$

Q.91 **The electron emitted in β – radiation originates from where?**

A. Inner orbits of atom
B. Free electrons existing in nuclei
C. The decay of a neutron in a nuclei
D. Photon escaping from a nuclei

Q.92 **If momentum is increased by 20% then K.E. increase by :**

A. 0.44
B. 0.55
C. 0.66
D. 0.77

Q.93 **The momentum of the moving photon is**

A. zero
B. hλ
C. λ/h
D. h/λ

Q.94 **The wavelength of beta rays is measured by**

A. Interference
B. Polarization
C. Absorption
D. Diffraction

Q.95 **In step down transformer _____ is decreased in secondary coils**

A. electric field
B. magnetic field
C. number of turns
D. none of these

Q.96 **One kcal =**

A. 4.18 J
B. 4180 J
C. 2.09 J
D. 2090 J

Q.97 **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

Q.98 **Which is not the result of special theory of relativity**

A. Length contraction
B. Space - time transformation
C. Time dilation
D. Mass variation

Q.99 **The distance between two point charges if halved, the force between them would be:....**

A. Half
B. Double
C. One fourth
D. Four times

Q.100 **In a periodic wave, the distance between a crest and the next consecutive trough is 15 cm. What is the wavelength of the wave?**

A. 10 cm
B. 5 cm

C. 7.5 cm
D. 30 cm

Q.101 A cyclist come to skidding stop in 10 m, the force on the cycle due to the road is 200 N and opposite to the motion. how much work does the road do on the cycle

A. 2000 J
C. 0
B. -2000 J
D. 200 J

Q.102 The image received of absorbed x rays is

A. Inverted
C. Any of a or b
B. Real
D. Virtual

Q.103 Which one is the correct statement about selenium?

A. Selenium is a good conductor
B. Selenium is a good insulator
C. Selenium is an insulator in the dark and becomes conductor when exposed to light
D. Selenium is an conductor in the dark and becomes insulator when exposed to light

Q.104 In annihilation process…..... are produced :

A. Positron
C. Electrons
B. Photons
D. B & C are correct

Q.105 Resistivity of a wire is ___ ohm-m if 0.75 A current flows through it by applying 1.5 V potential difference, take length and cross section as 5m and 2.5×10^{-7} m^2.

A. 1×10^{-7}
B. 2.63×10^{-8}
C. 19×10^{-8}
D. 7.85×10^{-8}

Q.106 After certain lapse of time, the fraction of radioactive polonium is found to be 12.5% of initial quantity. If the half life of polonium is 138 days, then duration of time lapse is…….days

A. 34.5
C. 414
B. 276
D. 125

Q.107 At every point of trajectory of projectile which of the following quantities is always zero

A. Horizontal velocity
C. Vertical acceleration
B. Total velocity
D. Horizontal acceleration

Q.108 The angular speed of a particle, moving in a circle of radius 20 cm, increases from 2 rad/s to 40 rad/s in 9s the ratio of its centripetal acceleration to tangential acceleration at the end of 19 s is,

A. 400:1
C. 800:1
B. 14:20
D. 7:40

Q.109 What is the wavelength of the wave if the phase angle between two points of the medium is 3pi/4 and they are separated through a distance of 3 cm?

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

Q.110 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

Q.111 A real transformer does not change

A. Voltage level
C. Power level
B. Current level
D. Frequency level

Q.112 A reversible carnot engine converts 1/6th of heat into input work. When the temperature of sink is reduced by 62 degree C then efficiency is doubled then temperature of source and sink is

A. 80 C ,37 C
C. 99C ,25C
B. 99 C , 30C
D. 99C , 37C

Q.113 Roots of a plant show which of the following?
A. Positive phototropism and negative geotropism
B. Negative tactic movement and positive tropic movement
C. Positive geotropism of stem and roots
D. Negative phototropism and positive geotropism

Q.114 Which one of the following biomolecules is most abundant in animals?
A. Starch
B. Glycogen
C. Cellulose
D. Both a and b

Q.115 The selection for a trait on one extreme is called which of the following?
A. Natural selection
B. Directional selection
C. Stabilizing selection
D. all of these

Q.116 What is the size of Parvovirus?
A. 200 nm
B. 20nm
C. 30 nm
D. 100 nm

Q.117 A nucleotide can also said as
A. Chromatic body
B. Nuclear region
C. Nuclear body
D. All of Above

Q.118 The dense fluid filled region in the chloroplast is?
A. Grana
B. Stroma
C. Thylakoid
D. Intergrana

Q.119 The fate of each blastomere is foretold. What will that cleavage be?
A. Spiral and indeterminate
B. Radial and indeterminate
C. Radial and indeterminate
D. Spiral and determinate

Q.120 Competitive inhibitors and real substrate often have similar?
A. Structure
B. Chemical properties
C. Physical properties
D. None of these

Q.121 The phage which causes lysis of the host cell is known as?
A. Lytic Phage
B. Lysogenic phage
C. Prophage
D. Bacteriophage

Q.122 The inflammation of bronchi or bronchioles is known as
A. emphysema
B. asthma
C. pneumonia
D. bronchitis

Q.123 If an individual does not reproduce then it's degree of fitness is?
A. 100
B. 50
C. 40
D. 0

Q.124 The function of vocal cords is to help in:
A. Voice production
B. Energy production
C. Glucose production
D. Air production

Q.125 The name animal is derived from what word?
A. Aname
B. Anemia
C. Anima
D. None of these

Q.126 Irreversible modifications require the synthesis of which of the following?
A. Enzymes
B. Carbohydrates
C. Vitamins
D. Proteins

Q.127 Which of the following is a oviparous animal?
A. Pidgeon
B. Elephant
C. Sheep
D. Humans

Q.128 The oxygen and carbon dioxide crosses the plasma membrane by the process of?
A. Active diffusion
B. Pacilitated diffusion
C. Passive diffusion
D. Random diffusion

Q.129 If the 1 amino acid is joined together by peptide bonds, it becomes
A. Protein
B. Globular protein
C. Functional protein
D. Secretive protein

Q.130 Maximum capacity of hemoglobin to absorb oxygen is:
A. 19.6ml/100 ml blood
B. 20 ml/100 ml blood
C. 25 ml/100 ml blood
D. 30 ml/100 ml blood

Q.131 Which one forms the raw material for coenzymes?

A. Vitamins
B. Carbohydrates
C. Lipids
D. Proteins

Q.132 The largest part of the human brain is the

A. Cerebrum
B. Thalamus
C. Hypothalamus
D. Limbic system

Q.133 Eukaryotes can share which of the following structures with prokaryotes?

A. Cell wall
B. Nucleoid
C. Golgi
D. Mitochondria

Q.134 Phenotype represents which of the following?

A. Morphology
B. Physiology
C. Genetics
D. All of these

Q.135 Which of the following is an exception to cell theory?

A. Bacteria
B. Viruses
C. Protists
D. Protozoans

Q.136 Which characteristic is not of identical twins?

A. Produced by separation of two blastomeres
B. Produced asexually
C. Produced when embryo is at two cell stage
D. Have different genetic makeup

Q.137 Which type of viruses infect E. Coli bacteria?

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

Q.138 The flow of lymph is always towards ----

A. pancreatic duct
B. bile duct
C. thoracic duct
D. parotid duct

Q.139 Which of the following are the first group of invertebrates which have developed a closed circulatory system?

A. Nematodes
B. Arthropods
C. Annelids
D. Molluscs

Q.140 Incomplete dominance is also termed as which of the following?

A. Half dominance
B. Codominance
C. Partial dominance
D. None of these

Q.141 Cortisol brings about an increase in blood glucose level mainly by its production from protein and by?

A. Glucagon
B. Estrogen
C. Insulin
D. Progesterone

Q.142 Which of the following characteristics make plasmid DNA useful for researchers?

A. Readily incorporate cloned DNA
B. Capable of autonomous replication
C. Capable of being isolated from genomic DNA
D. All of these

Q.143 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. Composition
C. Inhibition
D. Saturation

Q.144 Flagella are basically composed of a

A. Protein
B. Chemical
C. Enzyme
D. None of above

Q.145 In what year did WHO declare that smallpox was completely eradicated?

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

Q.146 what is the microscope's ability to distinguish between separate objects that are close together?

A. Magnification
B. Contrast
C. Resolving power
D. Scanning power

Q.147 What does $NADPH_2$ provide during photosynthesis?

A. Energized electron
B. Energy
C. Uncharged electron
D. All of these

Q.148 Shell of egg is leathery in appearance in which of the following?

A. Amphibians
B. Birds
C. Prototherians
D. Reptiles

Q.149 Homozygous chromosomes include which of the following?

A. Diploid cells
B. Polyploid cells
C. Both a and b
D. None of these

Q.150 During the menstrual cycle, which of the following events happens if a released egg does not become fertilised?

A. The lining of the womb wall stays built up.
B. The lining of the womb wall builds up again.
C. Another egg is immediately released.
D. The lining of the womb wall breaks down.

Q.151 Animals like starfish have small groups of neurons in each arm connected to a ring of neurons in the centre. This type of nervous system is called _____.

A. Centralized nervous system
B. Partially centralized nervous system
C. Diffuse nervous system
D. Partially diffuse nervous system

Q.152 Which structure of protein gives information about number and sequence of amino acids in it?

A. Primary structure
B. Secondary structure
C. Tertiary structure
D. Quaternary structure

Q.153 Water vapor exits and CO2 enters a leaf through the

A. Stomata
B. Grana
C. Porphyrin ring
D. Photons

Q.154 Viruses are how much smaller than bacteria?

A. 20 to 2000 times
B. 10 to 1000 times
C. 500 times
D. 3000 times

Q.155 The difference in photosynthesis spectrum and actin spectrum occurs due to?

A. Carbon dioxide
B. Oxygen
C. Carotenoids
D. Wavelength

Q.156 Which of the following are important points of Lamarck's theory?

A. Use and disuse of organs
B. Inheritance of acquired characters
C. Natural selection
D. Both a and b

Q.157 The female gametes are most commonly referred as?

A. Egg
B. Ova
C. Ovum
D. All of these

Q.158 The nasal cavity opens outside of the kind of openings that are known as

A. Pharynx
B. Bronchioles
C. Nostrils
D. None of these

Q.159 The oxidation phase of glycolysis is?

A. Energy consuming
B. Energy yielding
C. Net neutralization of energy
D. Both a and c

Q.160 What occurs when the thin actin and thick myosin filaments slide past each other?

A. Muscle relaxation
B. Muscle contraction
C. Muscle twitch
D. None of these

Q.161 The muscle which moves a body part towards the midline of the body is:

A.Flexor muscles
B. Extensor muscles
C. Adductor muscles
D. Abductor muscles

Q.162 Which of the following scientists hypothesized that organisms can pass down traits acquired during their lifetimes?

A. Lamark
B. Darwin
C. Mendel
D. Linnaeus

Q.163 A three-dimensional cavity bearing a specific charge by which the enzyme reacts with its substrate is called?

A. Active site
B. Binding site
C. Catalytic site
D. Allosteric site

Q.164 The fluidity of the plasma membrane increases with which of the following?
A. Increase in saturated fatty acids in the membrane
B. Increase in glycolipid content in the membrane
C. Increase in phospholipid content in the membrane
D. Increase in unsaturated fatty acids in the membrane

Q.165 The fluidity of the plasma membrane increases with which of the following?
A. Increase in saturated fatty acids in the membrane
B. Increase in glycolipid content in the membrane
C. Increase in phospholipid content in the membrane
D. Increase in unsaturated fatty acids in the membrane

Q.166 The skeleton of sponges is made up of which of the following?
A. Calcium
B. Silica
C. Both a and b
D. None of these

Q.167 The brain part that carries sensory information to the limbic system and cerebrum is
A. Medulla
B. Thalamus
C. Hypothalamus
D. Corpus callosum

Q.168 All of the following statements are true regarding the attachment or adsorption of the virion to the host cell EXCEPT that:
A. For naked virions, the surface capsid proteins are responsible for binding to a specific cell receptor.
B. For enveloped viruses, the spikes are responsible for binding to a specific cell receptor.
C. Cell lacking a receptor for a specific virus is not infected by that virus.
D. All of the above

Q.169 Which of the modes of cellular transport requires energy?
A. Active transport
B. Osmosis
C. Passive transport
D. Diffusion

Q.170 The lungs of lungfish are thought to have evolved from:
A. The swim bladder of cartilaginous fish.
B.. The swim bladder of bony fish.
C. The swin bladder of lobe-finned fish
D. They evolved independently.

Q.171 The soluble sap of the nucleus in a plant cell is called?
A. Cytoplasm
B. Nucleoplasm
C. Protoplasm
D. Protoplast

Q.172 Esters of fatty acids with higher alcohols other than glycerol are called___
A. Waxes
B. Fats
C. Both (A) and (B)
D. None of these

Q.173 The only promoter of leaf senescence in the following plant hormones is?
A. Gibberellins
B. Cytokinins
C. Auxins
D. Abscisic acid

Q.174 Most non-enveloped DNA viruses assemble their nucleocapsid in the
A. Cytoplasm
B. Nucleus
C. Microtubules
D. Golgicomplex

Q.175 The nodules of lymphoid tissue found in the wall of the intestinal tract are termed as:
A. Grave's region
B. Hashimoto's nodes
C. Peyer's patches
D. DiGeorge's nodes

Q.176 Which of the following statement about the head of a chlorophyll molecule is incorrect?
A. It is a porphyrin ring or tetrapyrrole ring structure
B. It is flat, square and light absorbing
C. Composed of carbon and nitrogen atoms with Magnesium as central metal ion, which is coordinated with nitrogen.
D. It is hydrophobic

Q.177 Phosphofructokinases enzyme converts fructose-6-phosphate into___
A. Fructose-1,4-phosphate
B. Fructose-1,6-bisphosphate
C. Bisphosphate
D. Fructose

Q.178 Which of the following is NOT a class of enzyme?

A. Ligase
B. Hydrolyse
C. Isomerase
D. Pyrimidine complex

Q.179 Example of a homologous organ is represented best by which of the following?

A. Wing of an insect, wing of a bird
B. Leg of a dog, leg of a spider
C. The arm of a human, wing of a bird
D. All of these

Q.180 Which of the following is non-cellular in most cases in animals?

A. Sclerenchyma
B. Chlorenchyma
C. Mesoderm
D. Mesenchyme

ENGLISH

Q.181 Choose the correct sentence.

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

Q.182 When the dentist came in (A), my tooth was stopped aching (B)/ out of fear (C) that I might loose my tooth. (D)

A. When the dentist came in
B. My tooth was stopped aching
C. Out of fear
D. That i might loose my tooth.

Q.183 It ____ now.

A. Rains
B. is raining
C. was raining
D. has been raining

Q.184 Tweezers ____ always useful to handle small objects.

A. is
B. are
C. will
D. may

Q.185 _____ it was raining, he went out without a raincoat.

A. Even
B. Since
C. Unless
D. Although

Q.186 Choose the correct sentence.

A. Didnt you hear that the exam was changed to next week.
B. Didn't you hear, that the exam was changed to next week?
C. Didn't you hear that the exam was changed to next week?
D. Did'nt you hear that the exam was changed to next week?

Q.187 Choose the future indefinite tense form of the given sentence. "The parcel has been delivered."

A. The parcel had been delivered.
B. The parcel will be delivered.
C. The parcel was delivered.
D. The parcel would have been delivered.

Q.188 A container of nuts and bolts _____ found in the cellar.

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

Q.189 A ship (A)/ laden with mechandise (B)/ got drowned (C)/ in the Pacific Ocean. (D)

A. A ship
B. laden with mechandise
C. got drowned
D. in the Pacific Ocean.

Q.190 My father _____ (buy) us popcorn and orange juice.

A. buy
C. bought
B. will buy
D. have bought

Q.191 The officer is angry (A)/ on the clerk (b)/ for not completing the job (C)/ on time. (D)

A. The officer is angry
C. for not completing the job
B. on the clerk
D. on time.

Q.192 I _____ (take) the medicine as prescribed by the doctor for a week now.

A. take
C. have been taking
B. would have taken
D. have had been taking

Q.193 Neither of the paintings _____ (is) sold.

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

Q.194 The samples on the tray in the lab _____ testing.

A. need
C. needing
B. needs
D. needed

Q.195 Can you _____ the tea and I'll get the cake myself.

A. depart
C. pour
B. disturb
D. feed

Q.196 Everyone hopes to get a job with prospects ---- promotion, but not many people manage to do so.

A. on
C. in
B. of
D. around

Q.197 There has been an increase in the price of oil in _____ weeks.

A. just passed
C. yesteradys
B. some
D. recent

Q.198 Choose the correct tense?

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

Q.199 There is _____ institution for _____ blind in this city.

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

Q.200 It was a good piece of land. They got quite ..... by using it to cultivate the much-needed industrial plants.

A. tranquil
C. responsible
B. peaceful
D. prosperous

LOGICAL REASONING

Q.201 Statements : All fish are tortoise. No tortoise is a crocodile. Conclusions : I. No crocodile is a fish. II. No fish is a crocodile.

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

Q.202 Fact 1 Some pens don't write Fact 2 Only blue pens write Fact 3 some writing utensils are pens If the above three statements are facts than which of the following statement will also be a fact I. Some writing utensils don't write II. Some writing utensils are blue III. Some blue writing utensils don't write

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

Q.203 Statement: There is sharp decline in the production of oil seeds this year. The government has decided to increase the import quantum of edible oil.

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

Q.204 Which letter lies in the middle of word Quality?

A. L B. A

C. U D. Y

Q.205 Look at this series: 7, 10, 8, 11, 9, 12, … What number should come next?

A. 7 B. 10

C. 12 D. 13

Q.206 Statement The availability of imported fruits has increased in the indigenous market and so the demand for indigenous fruits has been decreased. I. To help the indigenous producers of fruits, the Government should impose high import duty on these fruits, even if these are not of good quality. II. The fruit vendors should stop selling imported fruits. So that the demand for indigenous fruits would be increased.

A. Both of them follows C. Only I follows

B. None of them follows D. Only II follows

Q.207 If a - b = 3 and a2 + b2 = 29, find the value of ab.

A. 10 C. 15

B. 12 D. Both A and B

Q.208 Statement Should there be a total ban on tobacco products and smoking in India? Arguments (I) Yes. It is wrong to smoke away millions of money. (II) No. It will throw thousands of workers in the tobacco industry out of employment. (III) No. The government will lose huge amount of money as it will not earn by way of taxes on these products.

A. None is strong C. Only II is strong

B. Only I and II are strong D. Only II and III are strong

Q.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 C. Rachel

B. Ruby D. Max

Q.210 Country with the highest muslim population is _____

A. Pakistan C. Indonesia

B. Malaysia D. Iran

As we know there is lot of mistakes in answer keys of PMC Practice tests, so I have decided to rectify all in proper in SKN STUDY GROUP
Join it