PMC PRACTICE TEST 04

SOLVED

BIOLOGY

Q.1 **At which times there is no net gaseous exchange between leaves and the atmosphere?**

A. Day
B. Night
C. Dawn and Dusk
D. Midnight

Q.2 **Competitive inhibition can be overcome by using**

A. Low concentration of substrate
B. High concentration of inhibitor
C. Moderate concentration of inhibitor
D. High concentration of substrate

Q.3 **These animals show radial symmetry.**

A. Chordates
B. Annelids
C. Cnidarian
D. Round worms

Q.4 **The branch that deals with the study of viruses is known as?**

A. Entomology
B Bacteriology
C. Virology
D. Epidemiology

Q.5 **Which statement is incorrect?**

A. In short day plants red light prevents flowering
B. In long day plants for red light promotes flowering
C. Leaf unrolling occurs in grasses
D. Henbane is a short-day plant

Q.6 **Outbreeding increases which of the following?**

A. Homozygosity
B. Heterozygosity
C. Gene linkage
D. Gene pool

Q.7 **A neuron located in the central nervous system that projects its axon outside the CNS is called:**

A. Motor nerve
B. Sensory nerve
C. Both A and B
D. Mixed nerve

Q.8 **The neurons responsible for converting various external stimuli that come from the environment into corresponding internal stimuli is called:**

A. Motor nerve
B. Sensory nerve
C. Both A and B
D. Mixed nerve

Q.9 **A surfactant is essential for:**

A. Efficient gas exchange
B. Maintaining structural integrity of alveoli
C. Both A and B
D. None of these

Q.10 **Mating between relatives is called which of the following?**

A. Ex breeding
B. Breeding
C. Inbreeding
D. Outbreeding

Q.11 **In cocci, three plane division result in formation of sarcine which is a**

A. Cuba of 8 cocci
B. Square of 4 cocci
C. Irregular structure
D. Triangular 6 cocci

Q.12 **An enzyme without its cofactor is called _____ .**

A. Coenzyme
B. Apoenzyme
C. Holoenzyme
D. Proenzyme

Q.13 **Cellulose is the major component of?**

A. Primary wall
B. Secondary wall
C. Middle lamella
D. All of these

Q.14 Aschelminthes is also known as which of the following?

A. Protozoans
B. Eumetazoa
C. Protoctist ancestors
D. Nematodes

Q.15 Genes that affect growth rate in humans influencing both weight and height are?

A. Codominant
B. Epistasis
C. Polygene
D. Pleiotropy

Q.16 Example of convergent evolution is

A. Forelimbs of man and bat
B. Wings of birds and insects
C. Darwin's finches
D. All of above

Q.17 Final acceptor of electrons in respiratory chain is?

A. NADH
B. Cytochrome a3
C. Water
D. Oxygen

Q.18 The internal buds are known as which of the following?

A. Spicules
B. Choanocytes
C. Gemmules
D. Both A and B

Q.19 Darwins theory mainly focuses on

A. Origin of life
B. How organs extinct
C. How new species arise
D. How organisms form

Q.20 Which of the following bacteria possesses a spherical shape?

A. Bacillus anthracis
B. Escherichia coli
C. Spirillum minus
D. Staphylococcus aureus

Q.21 The spent energy in the form of ADP is regenerated by mitochondria into which of the following form?

A. AMP
B. ATP
C. ADP
D. All of these

Q.22 What are T-Cells and their role in HIV infection?

A. A type of lymphocytes
B. Present in blood and work as defence system
C. They kill the foreign invader
D. All of these

Q.23 Reflex action is a type of:

A. Voluntary action
B. Involuntary action
C. Saltatory conduction
D. None of these

Q.24 When was the bacteriophage phenomena rediscovered by D'Herelle?

A. 1918
B. 1917
C. 1920
D. 1990

Q.25 For respiratory metabolism, bacterial cell membrane contains

A. Proteins
B. Lipids
C. Enzymes
D. Chemicals

Q.26 Most carbon dioxide is transported in the form of:

A. Carboxyhemoglobin
B. Plasma proteins
C. Bicarbonate ions
D. In dissolved form

Q.27 During which of the following levels of biological organization can natural selection occur?

A. Gene
B. Individual
C. Group
D. All of these

Q.28 Flame cells in Planaria constitute the:

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

Q.29 Fluid secreted by sertoli cells provides sperms with which of the following?

A. Liquid medium
B. Protection
C. Nourishment
D. All of these

Q.30 The structure of which bacteriophage resembles a tadpole?

A. T2
B. T4
C. Both
D. None

Q.31 The movement of minerals or water via extracellular pathway is known as:

A. Symplast
B. Apoplast
C. Vascular
D. None of these

Q.32 Which one of the following is not a feature of the nervous system of Planaria?

A. Nuerons are differentiated into sensory, motor and associative neurons.
B. Nerves are present.
C. No specialized sensory organs are present.
D. All of the above.

Q.33 The researcher notices that round seeds occur naturally in the environment. Based solely on this information, what can the researcher conclude about the round phenotype?

A. It is dominant
B. It is recessive
C. It is wild type
D. Both a and b

Q.34 What molecule would you not expect to find in a retrovirus?

A. Adenine
B. Thymine
C. Uracil
D. Guanine

Q.35 Ribose is a monosaccharide constituent of many _____

A. Enzymes
B. Coenzymes
C. Vitamins
D. Antibiotics

Q.36 The retinal is important for _____ of human

A. Vision
B. Metabolism
C. Muscle contraction
D. Muscle twitch

Q.37 An entire skeletal muscle is surrounded by _____.

A. Sarcolemma
B. Epimysium
C. Both A and B
D. Microtubules

Q.38 Which of the following best describes a coenzyme?

A. Covalently bonded non-protein part of an enzyme
B. Cofactor consists of metal ions
C. Loosely bonded non-protein part of an enzyme
D. Both A and B

Q.39 If a cross section of a sarcomere is seen, each myosin is surrounded by how many actin molecules?

A. 5
B. 6
C. 7
D. 8

Q.40 How is pyruvate produced in anaerobic conditions?

A. Alcoholic fermentation
B. Lactic acid fermentation
C. Respiration
D. Both A and B

Q.41 The stretch reflex is also known as:

A. Stretch reflex
B. Spinal reflex
C. Golgi tendon reflex
D. Myotatic reflex

Q.42 The process that secretes insulin from the cell is called?

A. Endocytosis
B. Pinocytosis
C. Phagocytosis
D. Exocytosis

Q.43 Which cells produce oogonia in ovary?

A. Stromal cells
B. Epithelial cells
C. Germ cells
D. Theca cells

Q.44 Study of fossils is called

A. Mammalogy
B. Palaeontology
C. Herpetology
D. Ornithology

Q.45 During birth which of following act as birth canal?

A. Oviduct
B. Ovary
C. Uterus
D. Vagina

Q.46 Which part of the brain connects the cerebrum with the spinal cord?

A. Forebrain
B. Cerebrum
C. Cerebellum
D. Brainstem

Q.47 Which of the following are believed to have common origin with annelids?

A. Nematodes
B. Arthropods
C. Molluscs
D. None of these

Q.48 Which statement is incorrect about Lock and Key Model?

A. Specific enzyme can transform only a specific substrate
B. Active site of an enzyme is a non-flexible structure
C. Active site does not change before during or even after the reaction
D. It explains the mechanism of every chemical reaction

Q.49 Another name for the sex cell is:

A. Hormone
B. Gamete
C. Zygote
D. Testicle

Q.50 The cluster of pouches opened from alveolar ducts is known as

A. Bronchi
B. Bronchioles
C. Pharynx duct
D. Alveoli

Q.51 The water splitting step of photosynthesis is called?

A. Hydrolysis
B. Chemiosmosis
C. Photolysis
D. Photosynthesis

Q.52 A chromosome in which a centromere stays at one end is called?

A. Metacentric
B. Telocentric
C. Acrocentric
D. All of these

Q.53 Which of these is the best treatment for osteoarthritis?

A. Bed rest
B. Exercise
C. Cast
D. None of these

Q.54 Which of the following elements are not found in carbohydrates?

A. C
B. H
C. N
D. O

Q.55 The type of bronchitis that causes no permanent damage to the lungs and lasts for two weeks is known as

A. Acute bronchitis
B. Chronic bronchitis
C. Coastal bronchitis
D. Intercostal bronchitis

Q.56 Which of the following is not a viral disease?

A. Smallpox
B. Mumps
C. Tetanus
D. Cowpox

Q.57 Secondary oocyte is ovulated from:

A. Corpus luteum
B. Graafian follicle
C. Primary follicle
D. Germinal epithelium

Q.58 **According to the law of independent assortment, what is the possible number of combinations that chromosomes can assort to independently in the gamete?**

A. 16,777,216
B. 2,048
C. 4,194,304
D. 8,388,608

Q.59 **The last common ancestor of humans is known to be which of the following?**

A. Homo neanderthalensis
B. Lemuroidea
C. Dromaeosaurus
D. Pan troglodytes

Q.60 **Which of the following statements correctly describes how the host cell membrane is changed by viral replication?**

A. Pores develop.
B. Glycocalyx layer is formed.
C. Membrane is resynthesized
D. Viral proteins are acquired.

Q.61 **Which of the following is a compensation point?**

A. Leaves respire and utilize O_2 and release CO_2.

B. Photosynthesis and respiration occur at same rate. So there is not net exchange of gases between atmosphere and plants.

C. Rate of photosynthesis increases, so do the O_2 production, with a net release of oxygen coupled with the uptake of CO_2

D. Rate of respiration becomes more than rate of photosynthesis. 16 Net yield of H_2O in Photosynthesis is

Q.62 **Which of the following is not a sterilization method for the control of bacteria?**

A. Radiation
B. Filtration
C. High temperature
D. Antiseptics

Q.63 **Which hormone is produced mainly by corpus luteum in the ovary following ovulation?**

A. Progesterone
B. FSH
C. LH
D. Chorionic gonadotrophic hormone

Q.64 **According to the induced fit model, what happens when an enzyme-substrate complex is formed?**

A. The contact between the substrate and the enzyme causes a change in the shape of the active site.

B. The shape of the substrate and the shape of the active site are complementary to each other.

C. The substrate fits into the active site and forms bonds with the amino acids at the active site.

D. All of the above.

Q.65 **How are flat worms not similar to round worms?**

A. They are both acoelomates.
B. They are both triploblastic.
C. They both show bilateral symmetry.
D. They are both worms.

Q.66 **Which type of sensory structures carrying the touch sensations are present in papillae extending into ridges of the fingertips?**

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

Q.67 **The animals which belong to division Radiata is/are?**

A. Triploblastic
B. Diploblastic
C. Radioblast
D. All of these

Q.68 **Enzymes are globular proteins because:**

A. They have a primary structure.
B. They have a secondary structure.
C. They have a tertiary structure.
D. All of the above.

CHEMISTRY

Q.69 Carbon dioxide is an Example of

A. Ionic Solid
B. Metallic Solid
C. Molecular Solid
D. Covalent Solid

Q.70 Which one of the following is an electrophile?

A. Br^+
B. CH_4
C. NH_3
D. H_2O

Q.71 Glycerol can also be termed as

A. 1 – butanol
B. 1, 2, 3 - propanetriol
C. 2 - methyl – propanol
D. Isobutyl alcohol

Q.72 Isopentane is an example of_____?

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

Q.73 The unit used to express the relative atomic mass is called

A. Gram unit
B. Avogadro's number
C. Atomic mass
D. Atomic mass unit

Q.74 The specific site at which substrate is attached on the enzyme and converted into product is called as___?

A. Reaction site
B. Active site
C. Binding site
D. None of these

Q.75 Metallic character depends on_____?

A. Electron Affinity
B. Ionization energy
C. Electronegativity
D. All of these

Q.76 Which of the following method is used to prepare acetic acid?

A. Distillation
B. Fermentation
C. Dehydration
D. Ozonolysis

Q.77 H bonding is not present in which of the following_____?

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

Q.78 What is the nature of Carbon present in Aldehyde is?

A. Nucleophilic
B. Electrophilic
C. Neutral
D. All of these

Q.79 Salt Bridge is used for the purpose of

A. Producing Electrons
B. Circuit Completion
C. Increasing speed of electrons
D. All of these

Q.80 According to Bohr, the orbits in which electrons revolve around the nucleus are

A. Oval
B. Elliptical
C. Cylindrical
D. Circular

Q.81 Conjugate base of a weak acid is

A. Weak
B. Strong
C. Unstable
D. None of these

Q.82 In balancing it is very important to identify the substance whose

A. Physical state is changed
B. Oxidation number is changed
C. Enthalpy is changed
D. All of these

Q.83 Alcohol oxidation gives carboxylic acid through

A. Amide
B. Carbonic acid
C. Ketone
D. Aldehyde

Q.84 **The electron affinity of fluorine is less than chlorine as we move down the group, this deviation in behavior is due to its**

A. Small size
B. Seven electron
C. Thick electronic cloud
D. All of these

Q.85 **The general name of ore $CaSO_4.H_2O$ is**

A. Gypsum
B. Dolomite
C. Calcite
D. Plaster of Paris

Q.86 **The correct electronic configuration of Cr is**

A. $[Ar]^4s^23d^4$
B. $[Ar]\ ^4s^23d^4$
C. $[Ar]^4s\ 3d^5$
D. $[Ar]^4s^13d^5$

Q.87 **Half Life $\alpha = \frac{1}{a^{(n-1)}}$ where n is**

A. Number of reactant molecules
B. Number of moles of reactants
C. Number of moles of products
D. Order of Reactions

Q.88 **Acetaldehyde in the presence of Con.H_2SO_4 undergoes _____?**

A. Dehydration
B. Polymerization
C. Condensation
D. Oxidation reaction

Q.89 **If two substituents are present at 1,4 positions then the isomer is called as_____?**

A. Ortho
B. Meta
C. Para
D. None of these

Q.90 **Which of the following properties belong to acetic acid?**

A. Colourless liquid, odourless, sour taste
B. Bright colour bitter taste
C. Colourless solid, sour taste, pungent smell
D. All are incorrect

Q.91 **The half-life of Uranium is**

A. 700 Million years
B. 706 Million years
C. 89 days
D. 710 million year

Q.92 **Change in Pressure will only affect the substances which are in**

A. Liquid state
B. Solid State
C. Plasma state
D. Gaseous State

Q.93 **The ionization energy of group __shows abnormal trend**

A. 3A & 4A
B. 5A & 6A
C. 6A & 4A
D. 3A & 6A

Q.94 **Which of the following is a strong acid?**

A. Ethane
B. Ethyl Chloride
C. Ethanol
D. Phenol

Q.95 **Wholar first time prepare urea in laboratory in_____?**

A. 1900
B. 1829
C. 1850
D. 1828

Q.96 **Heat supplied at constant pressure equals to**

A. Activation Energy
B. Internal energy change
C. Entropy
D. Enthalpy

Q.97 **Due to less polarizability of Fluorine, it boils at _____ C**

A. -188.1
B. 188.1
C. 184.4
D. 184.4

Q.98 **In SN_2 reactions, the hybridization of carbon in moving from substart to transition state changes from?**

A. Sp^2 to sp^3
B. sp to sp^2
C. sp^3 to sp^2
D. sp to sp^3

Q.99 Which forces are very significant in non-polar molecules like Cl_2, H_2 and noble gases?

A. Dipole-dipole
B. Induced dipole
C. London
D. Spontaneous induced dipole

Q.100 Which of the following is typical transition element?

A. Zn
B. Cd
C. Cu
D. Hg

Q.101 Strong acid can be involved in a spontaneous reaction which is termed as

A. Addition Reaction
B. Substitution Reaction
C. Neutralization Reaction
D. Reversible Reaction

Q.102 In electrochemical series reduction potential relates to only

A. Real Conditions
B. Standard Conditions
C. Positive Values
D. Negative Values

Q.103 Left-handed helix in proteins secondary structure is called as____?

A. Alpha helix
B. Beta helix
C. Spiral
D. Concentrate

Q.104 The maximum number of electrons accommodated in a shell or energy level is calculated by formula

A. n^2
B. $2n^2$
C. 2n
D. 3n

Q.105 Ethane is obtained by electrolyzing _____

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

Q.106 PV/nRT for an ideal gas is called

A. Expansion factor
B. Depression factor
C. Compressibility factor
D. Diffusion factor

Q.107 I^- is an example of_____?

A. Electrophile
B. Nucleophile
C. Leaving group
D. Both nucleophile and leaving group

Q.108 Temperature and volume in an experiment are part of

A. Surroundings
B. System
C. State of a system
D. All of these

Q.109 What is the mass of one mole aspartame having formula $C_{14}H_{18}N_2O_5$?

A. 4g
B. 40g
C. 50g
D. 1g

Q.110 Which of the following compound is an amide?

A. NH_4CNO
B. NH_2COCH_3
C. NH_2CONH_2
D. NH_2COONH_2

Q.111 Evaporation is a _____process?

A. Exothermic
B. Spontaneous
C. Non-Spontaneous
D. None of these

Q.112 If uncertainty in momentum of electron is zero, the uncertainty in its position would be___?

A. Less than zero
B. More than zero
C. One
D. Infinite

Q.113 From which of the following ketone can be prepared?

A. Propyne
B. Secondary alcohol
C. Ca Acetate
D. All of these

Q.114 On which of the following factors Hydration Energy depend?

A. Charge to size ratio
B. Polarizability of anions
C. Polarization power of Cations
D. All of these

Q.115 The crude petroleum is separated in fraction by

A. Filtration
B. Fractional distillation
C. Steam distillation
D. Fractional sublimation

Q.116 Distillation of calcium acetate and calcium formate produces?

A. Formaldehyde
B. Acetaldehyde
C. Acetone
D. None of these

Q.117 After the hydrolysis of ester the change in concentration of acid at different intervals is calculated by

A. Titration with $KMnO_4$
B. Titration with Standard Alkali
C. Distillation
D. Evaporation of mixture

Q.118 Most of the enzyme reactions are_____?

A. Reversible
B. Irreversible
C. Condensation
D. Oxidation

Q.119 Caustic Soda is made by electrolysis of concentrated solution of NaCl in

A. Nelson's Cell
B. Hg - Cell
C. Castner Kellner Cell
D. All of these

Q.120 Which of the following has six isotopes?

A. Palladium
B. Tin
C. Cadmium
D. Carbon

Q.121 $K_2(Cu(CN)_4)$ which one is correct

A. Potassium tetra cyano recuperate
B. Coordination number is 2
C. The ligand is positively charged
D. Central atom is present in the avionic sphere

Q.122 An orbital can accommodate at the most _____electrons

A. 2
B. 14
C. 1
D. 6

Q.123 Which of the following is succinic acid?

A. Ethanoic acid
B. Hexanedioic acid
C. Butanedioic acid
D. Propanoic acid

Q.124 Ethyne has which hybridization?

A. sp^3
B. sp^2
C. sp
D. sp^2d

PHYSICS

Q.125 SI Unit of current is?

A. Ampere
B. Volt
C. Joules
D. Watt

Q.126 When a force is parallel to the direction of motion of body, the work done is

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

Q.127 Which unit is used in the measurement of Displacement?

A. m
B. m/s
C. 1/s
D. N

Q.128 Which is not radioactive?

A. Ozone
B. Hydrogen
C. Sodium
D. All of these

Q.129 What is the relationship between Power, Current and Resistance?

A. $P=I^2R$ B. $P=I^2R/2$

C. $P=IR$ D. All of them

Q.130 A closed container contains an ideal gas. Which of the following changes will result in decrease in temperature?

A. Volume = decrease temperature = decrease

B. Volume = decrease temperature = increase

C. Volume = increase temperature = decrease

D. Volume = increase temperature = increase

Q.131 In a stationary wave, the distance between adjacent nodes is equal to:

A. λ B. 2λ

C. $\lambda/2$ D. $\lambda/4$

Q.132 In stretched string the frequency of vibration is given by $f=1/2L\sqrt{F/m}$. In this equation m has dimension

A. ML^{-2} B. ML^{-1}

C. M D. ML

Q.133 Magnetic flux is a

A. Scalar quantity B. Vector quantity

C. Sometimes scalar sometimes vector D. None of these

Q.134 "The heat required to raise the temperature of one mole of the substance through 1 K" is called: ...

A. Specific latent heat B. Molar heat capacity

C. Molar specific heat D. Specific heat capacity

Q.135 A particle is performing uniform circular motion has constant:

A. Velocity B. Acceleration

C. Position D. Momentum

Q.136 First law of thermodynamics is a special case of

A. Newton's law B. Charles's law

C. Conservation of energy D. Conservation of entropy

Q.137 Acceleration in the Simple pendulum is always _____ to displacement

A. Inversely proportional B. Directly proportional

C. Acting negative D. Independent

Q.138 The nucleus shape is considered to be

A. Square B. Rectangle

C. Sphere D. Circular

Q.139 Peak voltage in the output of full wave rectifier is 10V so dc component of output voltage is

A. $10\sqrt{2}$ B. $20/\sqrt{2}$

C. $20/\pi$ D. 20π

Q.140 When a standing wave is set up in a pipe which is open from one end, which of the following statements is true?

A. Sum of the number of antinodes and the number of nodes is always even

B. Wavelength = length string / number of nodes

C. The shape of the string at any instant shows a symmetry about the midpoint of the string

D. Frequency = number of nodes × fundamental frequency

Q.141 The angular momentum of photon is

A. Infinite B. Zero

C. Negative D. Still not found

Q.142 Three charges + 3q + q and Q are placed on a straight line with equal separation. In order to make the net force on q to be zero, the value of Q will be

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

Q.143 The flux is the region where magnetic field

A. Changes direction
B. Changes strength
C. Changes polarity
D. No change occur

Q.144 In mass-spring system, which of the following does not depend on the initial displacement of the spring?

A. Maximum kinetic energy of the mass
B. Average speed of the mass
C. Total energy of the mass
D. Angular frequency of the oscillation

Q.145 Current that fluctuates periodically with time is

A. DC current
B. BC current
C. AC current
D. Magnetic current

Q.146 A circuit that adds positive or negative dc voltage to an input sine wave is called

A. Clamper
B. Clipper
C. Diode clamp
D. Limiter

Q.147 Why x-rays are used in crystallography

A. To prevent interference
B. To prevent diffraction
C. To perform interference
D. To perform diffraction

Q.148 Which of the following can have negative temperature coefficient?

A. Compounds of silver
B. Liquid metals
C. Metallic alloys
D. Electrolytes

Q.149 In adiabatic expansion

A. $\Delta U=0$
B. ΔU= negative
C. ΔU= positive
D. $\Delta W=0$

Q.150 Bones image is shown on x-ray photograph because x-rays can be

A. Transmitted through bones
B. Reflected by bones
C. Absorbed by bones
D. Scattered by bones

Q.151 The output voltage of a rectifier is

A. Smooth
B. Pulsating
C. Perfectly direct
D. Alternating

Q.152 Which isotope has highest momentum when moving with same velocity

A. Protium
B. Deuterium
C. Tritium
D. All of these have same momentum

Q.153 If two photons interact in same direction what will change

A. Mass
B. Energy
C. Intensity
D. None of these

Q.154 Why should a resistance be introduced in a circuit in series deliberately?

A. To increase current
B. To decrease current
C. To control current
D. Just to give a good look to the circuit

Q.155 The value of permittivity of material, other than air or space is:...

A. Greater than unity
B. Less than unity
C. Equal to unity
D. Zero

Q.156 When an object moves on a circular path, then:

A. Its displacement is constant
B. Its displacement changes due to change in distance

C. Its displacement changes due to change in direction of motion

D. Its displacement is always zero

Q.157 Acceleration of a moving car when brakes are applied is

A. Negative

B. Zero

C. Positive

D. Infinite

Q.158 The clouds are formed when water ___ heat

A. Absorb

B. Release

C. First absorb than release

D. First release than absorb

Q.159 If velocity of charged particle and magnetic field are at a fix angle not 90 then path will be

A. Circular

B. Straight line

C. Spherical

D. Helical

Q.160 All of the following are equivalent to watt except

A. $(Amperes)^2 ohm$

B. Joules/sec

C. Amperes × volts

D. Amperes/volt

Q.161 Which of the following phenomenon proves that light waves are transverse waves?

A. Polarization

B. Refraction

C. Interference

D. Diffraction

Q.162 The frequency of the incident photon after compton effect will:

A. Remain constant

B. Increases

C. Decreases

D. None of these

Q.163 When the direction of the force and displacement are opposite, work done is

A. Negative

B. Positive

C. Zero

D. None of these

Q.164 An angular velocity of 60 revolutions per minute is the same as:

A. $1/2\pi$ rad/s

B. 120π rad/s

C. $30/\pi$ rad/s

D. 2π rad/s

Q.165 A transformer steps down from 200V to 50 V. It has secondary winding = 40 turns, then windings in primary coil are

A. 150

B. 160

C. 170

D. 200

Q.166 For which angle between area and magnetic field, flux is maximum

A. 0 degree

B. 90 degree

C. 45 degree

D. 60 degree

Q.167 Mutual inductance has a practical role in performance of

A. AC generator

B. Radio choke

C. DC generator

D. Transformer

Q.168 As a result of interference, energy

A. Is transmitted and reflected

B. Is lost

C. Remains unchanged as a whole but is redistributed

D. Is gained

Q.169 If a wheel of radius r turns through an angle of 30°, then the distance through which any point on its rim moves is?

A. $\pi/3r$

B. $\pi r/6$

C. $\pi/30r$

D. $\pi/180r$

Q.170 The phase angle between two points in a medium is $\frac{3\pi}{4}$. If the distance between these points is 20 cm, then wavelength of the wave is?

A. 8/15 m

B. 15/8 m

C. 8/15 cm

D. 15/8 cm

Q.171 If an A.C voltage rms value of 10 volt is applied as input of half wave rectifier, then the rms voltage value of D.C output will be

A. 10V
B. 10.3V
C. 10.7V
D. 9.3V

Q.172 A wire has a resistance of 5.5 Ω at 19oC and 21.5 Ω at 200oC. Find the temperature coefficient of resistivity(α) of the material.

A. 0.016 per degree Celsius
B. 32 per degree celsius
C. 0.018 per degree Celsius
D. 0.00106 per degree Celsius

Q.173 _____ are such nuclei of an element that have the same mass number A, but have different charge number Z

A. Isotopes
B. Isobars
C. Isomers
D. Isotherms

Q.174 Vector is quantity which

A. Has direction
B. Has magnitude
C. Follow rules of vector addition
D. Both direction and magnitude

Q.175 Half wave voltage multiplier can provide any degree of voltage multiplication by cascading diodes and capacitors.

A. Any doubler
B. Any tripler
C. Any multiplication
D. None of them

Q.176 A particle having the charge of 20 electrons on its falls through a potential difference of 100 volts.Calculate the energy acquired by it in electron volt (eV).

A. 2.0×10^{-2} Ev
B. 2.0×10^{-3} eV
C. 2.0×10^{2} eV
D. 2.0×10^{3} eV

Q.177 An ideal gas at 15.5C and a pressure of 1.72×10^{5} Pa occupies a volume of 2.81 m^3. How many moles of gas are present?

A. 2.01 mol
B. 21 mol
C. 201 mol
D. 2001 mol

Q.178 Is it possible to separate north pole only from bar magnet?

A. Yes
B. No
C. In some cases it is possible
D. None of these

Q.179 A particle radioisotope has a half-life of 5 days. In 15 days the probability of decay in percentage will be

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

Q.180 The ratio of mass of electron to neutron is

A. 1
B. 1200
C. 1300
D. None of these

ENGLISH

Q.181 Choose the correct spelling of the word

A. Arround
B. Arond
C. Arund
D. Around

Q.182 Gold is _____precious metal.

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

Q.183 What is your name?

A. Declarative
B. Imperative
C. Interrogative
D. Exclamatory

Q.184 Choose the correct sentence.

A. ali lives in dubai, the United arab emirates.

B. Ali lives in dubai, the united arab emirates.

C. Ali lives in Dubai, in the United Arab Emirates.

D. Ali lives in Dubai, the United Arab Emirates.

Q.185 One bad exam result and all her dreams were _____

A. fled

B. Shattered

C. Fulfilled

D. Floating

Q.186 Bilal _____ (live) with his brother.

A. lives

B. is living

C. has lived

D. had lived

Q.187 Identify the tense used in the given sentence. "Everyone shall be reaching by tomorrow."

A. Present

B. Past

C. Future

D. None

Q.188 Now the time was to escape and he opened the window and jumped out.

A B C D

A. Now the time was

B. to escape

C. and he opened the window

D. and jumped out

Q.189 I have two sisters.

A. Declarative

B. Imperative

C. Interrogative

D. Exclamatory

Q.190 Each and every member _____ to vote.

A. has

B. have

C. having

D. are

Q.191 Dunce

A. Block headed

B. Smart

C. Wise

D. Agile

Q.192 I have

A. I've

B. Ive

C. I'hve

D. Ih've

Q.193 Choose the correct spelling of the word

A. Discribe

B. Deskribe

C. Describe

D. Diskribe

Q.194 One of the students said, "____ professor is late today."

A. A

B. An

C. The

D. no article

Q.195 His bag was quite _____ so I easily carried it to his room.

A. Cheap

B. Heavy

C. Light

D. Short

Q.196 I advised her _____ drink it.

A. Don't

B. not to

C. to not

D. to don't

Q.197 As an officer he not only was competent but also honest.

A B C D

A. As an officer

B. he not only was

C. competent but

D. also honest.

Q.198 The book is about _____ man who lives on _____ small island.

A. a... an

B. a...a

C. a....the

D. an...an

Q.199 Sam _____ in the garden now.

A. digs
B. digging
C. is diging
D. is digging

Q.200 If mountains are _____ of trees, rains will soon wash the fertile topsoil down the slope to end as useless silt below.

A. Deforested
B. Afforested
C. Stripped
D. Shortage

LOGICAL REASONING

Q.201 Statements:

All film stars are playback singers. All film directors are film stars.

Conclusions:

I. All film directors are playback singers.

II. Some film stars are film directors.

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

Q.202 Fact1: All drink mixes are beverages

Fact 2: All beverages are drinkable

Fact 3: All beverages are red

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

I. Some drink mixes are red

II. All beverages are drink mixes.

III. All red drink mixes are drinkable

A. I only
B. II only
C. III only
D. None of them is a fact

Q.203 Statement:

The availability of imported fruits has increased in the indigenous market and so the demand for indigenous fruits has been decreased.

Course of Action:

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

Q.204 Statement:

The Management of School M has decided to give free breakfast from next academic year to all the students in its primary section through its canteen even though they will not get any government grant.

Courses of Action

(I) The school will have to admit many poor students who will seek admission for the next academic year.

(II) The canteen facilities and utensils have to be checked and new purchases to be made to equip it properly.

(III) Funds will have to be raised to support the scheme for years to come.

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

Q.205 Statement:

I. Majority of the citizens in the locality belongs to higher income group.

II. The sales in the local supermarket are comparatively much higher than in other localities.

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 What should come next to it infirmary

A. surgery

B. disease

C. patient

D. receptionist

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

A. Guard

B. Lock

C. Conserve

D. Humble

Q.208 Directions:

In each of the following questions a statement is given, followed by two conclusions.

Give answer:

Statement: "Please do not wait for me, I may be late, start taking lunch as soon as the guests arrive." - A message from a Director of a Company to his office managers.

Assumptions:

I. Keeping guests waiting is not desirable.

II. Lunch may not be ready in time.

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.209 Statements:

I. Large number of Primary Schools in the rural areas is run by only one teacher.

II. There has been a huge dropout from the primary schools in rural areas.

A. statement 1 is the cause then 2 is its effect

B. statement 2 is the cause then 1 is its effect.

C. Both statements are independent causes

D. Both of the statements are effect of independent causes

Q.210 Complete the series A2.5, B5, C7.5, _____?

A. D9

B. D10

C. D9.5

D. D45