

PMC PRACTICE TEST 01

CHEMISTRY

- Q.1** The carbonyl compound which is attached with at least one H atom at one side is called as ____?
- A. Ketones
B. Aldehydes
C. Ethers
D. Alkyl halides
- Q.2** The difference in the E.N values of the bonded atoms b/w two atoms is an index to __ of covalent bond
- A. polar nature
B. non-polar nature
C. strength
D. nature
- Q.3** The equilibrium Constant is always written as a ratio of
- A. Reactants over products
B. Products over reactants
C. Product times Reactants
D. None of these
- Q.4** Melting and boiling point of transition elements is higher due to _____?
- A. Higher binding energies
B. Strong metallic bonding
C. Hardness
D. All of these
- Q.5** The smallest part of the crystal lattice has all the properties of the entire crystals, this is called
- A. unit
B. unit cell
C. unit crystal
D. all of these
- Q.6** The Relative atomic mass of copper is
- A. 63.345amu
B. 63.455amu
C. 63.55 amu
D. 63.456amu
- Q.7** Current in electrolysis is carried through
- A. Free electrons
B. Positive Ions
C. Negative Ions
D. Both B and C
- Q.8** The substance that is attached to the enzyme at specific place and converted into product is called as?
- A. Co-factor
B. Iso-zyme
C. Active site
D. Substrate
- Q.9** How carboxylic acid are formed from alcohol?
- A. Hydrolysis
B. Reduction
C. Oxidation
D. protonation
- Q.10** Energy for the endothermic reaction is given a _____ value?
- A. Positive
B. Negative
C. 0
D. Neither positive nor negative
- Q.11** Which alkyl halide give SN_2 reactions?
- A. Secondary
B. Primary
C. Tertiary
D. All of these
- Q.12** In which of the following water evaporate earlier?
- A. Cup
B. Saucepan
C. Glass
D. Small bowl
- Q.13** Free radical reactions take place in the presence of _____?
- A. Heat
B. Sun light
C. Catalyst
D. Oxygen
- Q.14** Which type of bonds are break during cracking?
- A. C-C
B. C-H
C. Both C-C and C-H
D. C-O
- Q.15** What is the common name of the compound? $CH_3-(CH_2)_2-CH_2-Cl$

- A. Chloropentane
C. n-pentyl chloride
- B. n-Chloropentane
D. 1-chloropentane
- Q.16** **SN_i reactions have which of the following specie formed and consumed in the reaction ?**
- A. Transition state
C. Carbanion
- B. Intermediate
D. Carbene
- Q.17** **Which ion will have a maximum value of the heat of hydration?**
- A. Al⁺³
C. Ba⁺
- B. Cs⁺
D. Mg⁺²
- Q.18** **Which of the following method is used to prepare Ethylene glycol from ethene?**
- A. Dehydration
C. Hydration
- B. Hydroxylation
D. Luca's test
- Q.19** **Which of the following is a poor leaving group in nucleophilic substitution reactions?**
- A. Cl⁻
C. I⁻
- B. Br⁻
D. -OH
- Q.20** **By increasing which of the following factor polarizability increases?**
- A. Atomic radius
C. Ionic radius
- B. Ionization energy
D. Hydration energy
- Q.21** **What are the products of destructive distillation of coal?**
- A. Coal tar
C. Coal gas
- B. Coke
D. All of above
- Q.22** **Which of the following condition is constant in Bomb calorimeter?**
- A. Pressure
C. Temperature
- B. Volume
D. All of these
- Q.23** **The shielding effect is also called**
- A. Zee effect
C. negative effect
- B. screening effect
D. reducing effect
- Q.24** **The reactions of carboxylic acids which involve H atom removal of OH group form _____ as major products in all reactions?**
- A. Esters
C. Ketones
- B. Nitriles
D. Salts
- Q.25** **Which of the following is most soluble in water?**
- A. Ethanoic acid
C. Hexanoic acid
- B. Pentanoic acid
D. Butanoic acid
- Q.26** **Which of the following is produced by heating of bones?**
- A. Gelatine
C. Albumin
- B. Cheese
D. Gelly
- Q.27** **Different kind of atoms of same element are called isotope having different _____but same _____properties**
- A. physical, atomic
C. chemical, physical
- B. physical, chemical
D. chemical, atomic
- Q.28** **The number of reacting molecules which changes their concentration in chemical change is called**
- A. Extent of a Reaction
C. Specific rate of a reaction
- B. Order of a Reaction
D. Enthalpy of reaction
- Q.29** **Lattice Points are also called**
- A. space lattice
C. lattice sites
- B. crystal lattice
D. Lattice location

- Q.30** The molecules of ___ have dipole-dipole interaction
 A. methane
 B. neon
 C. ammonia
 D. ethane-ethyl alcohol
- Q.31** The e/m values for the positive rays depends on _____ enclosed in a discharge tube.
 A. nature of gas
 B. properties of gas
 C. composition of gas
 D. all of these
- Q.32** How many chain isomers of Pentane is possible?
 A. Two
 B. Four
 C. Three
 D. Five
- Q.33** d block elements are also called as _____?
 A. Rare earth elements
 B. Outer transition elements
 C. Inner transition elements
 D. Typical transition elements
- Q.34** A very small value of K_c depicts
 A. No Reaction
 B. Backward Reaction
 C. Little Forward Reaction
 D. Complete Reaction
- Q.35** Phenol reacts with calcium carbonation and evolve _____?
 A. H_2 gas
 B. CO_2 gas
 C. O_2
 D. None of these
- Q.36** Heat exchanged between the system and surrounding at constant volume is shown by the relation?
 A. $\Delta H = qv + w$
 B. $\Delta E = (q)v$
 C. $\Delta H = (q)v$
 D. $\Delta E = (q)v + PV$
- Q.37** At constant volume the heat supplied is equal to
 A. work done
 B. Internal energy change
 C. enthalpy
 D. entropy
- Q.38** Covalent Character of hydrides decrease _____?
 A. Down the Group
 B. Along period
 C. Along d- block
 D. All of these
- Q.39** While calculating vapor pressure of a liquid in manometer, the column of mercury facing the vapors of a liquid is _____ due to pressure on surface of liquid in flask
 A. compressed
 B. depressed
 C. rises
 D. lowers
- Q.40** Organic compounds in which tetravalency of carbon atom is satisfied are called as _____?
 A. Saturated
 B. Unsaturated
 C. Alkenes
 D. Alkynes
- Q.41** The ionization energy increases from left to right in a period due to increase in
 A. nuclear charge
 B. number of electrons
 C. atomic number
 D. all of these
- Q.42** How do the 'p' orbitals p_x , p_y , p_z differ from each other
 A. size
 B. shape
 C. orientation
 D. capacity
- Q.43** Urease is present in:
 A. Yeast
 B. Grapes
 C. Soya sauce
 D. Soya bean
- Q.44** f-block elements are called?
 A. inner transition
 B. outer transition

- C. both
D. none
- Q.45 With different number of moles of reactants and product the volume of system**
A. Remains unchanged
B. changes
C. decrease
D. increase
- Q.46 Which of the following is not a derivative of benzene?**
A. Pyrrole
B. Furan
C. Thiophene
D. All
- Q.47 Which of following is an example of electrophilic attack on alcohols?**
A. $C_2H_5OH + CH_3COOH \rightarrow H_2SL_4$
B. $2C_2H_5OH + 2Na \rightarrow 2CH_3ONa + H_2$
C. $C_2S_5OH + HCL \rightarrow Zncl_2 C_2H_5CL + H_2O$
D. Both a and b
- Q.48 Drawing a graph between concentration change with time gives a**
A. Straight line
B. parabola
C. Curve
D. Scattered graph
- Q.49 18g of water contains _____ atoms of hydrogen**
A. 6.022×10^{23}
B. $3 \times 6.022 \times 10^{23}$
C. $2 \times 6.022 \times 10^{23}$
D. $4 \times 6.22 \times 10^{23}$
- Q.50 Which of the following compete with each other?**
A. E₁, E₂
B. E₁, S₂
C. E₂, S₁
D. E₂, S₂
- Q.51 Friedrich prepared UREA from**
A. Amino Acids
B. Ammonium carbonate
C. Ammonium cyanate
D. xanthin
- Q.52 Which of the following family is linked with plant ashes?**
A. Nitrogen Family
B. Alkali metals
C. Rare earth metals
D. Oxygen Family
- Q.53 If a molecule contains 4 electron pairs, The shape of molecule will be**
A. Tetrahedral
B. trigonal
C. linear
D. none of these
- Q.54 Casein is used in manufacturing of _____.**
A. Buttons & buckles
B. Tanning of leather
C. Gelatin
D. Bakery goods
- Q.55 According to Avogadro's law, .899 g of 1dm³ H₂ and 1.4384 g of 1 dm³ O₂ have number of molecules**
A. Same
B. Different
C. H₂ has more
D. O₂ has more
- Q.56 Formation of carbon dioxide hinders in calculating the heat of formation of**
A. CCl₄
B. O₃
C. CO
D. C

BIOLOGY

- Q.57 Coelom that develops from the archenteron as outpouching is?**
A. Pseudocoelom
B. Schizocoelom
C. Enterocoelom
D. both a and b
- Q.58 Enzymes work by which of the following?**
A. increasing the activation energy
B. reducing the activation energy
C. making exergonic reactions endergonic
D. making endergonic reactions exergonic

- Q.59 Ribosomes combined with mRNA are called?**
 A. lysosome B. nucleosome
 C. polysome D. polysome
- Q.60 The upward movement of sap by the xylem is:**
 A. ascent of sap B. plasmolysis
 C. deplasmolysis D. guttation
- Q.61 Photosystem II has molecules which absorb maximum light of?**
 A. 680 nm B. 100 nm
 C. 700 nm D. 670 nm
- Q.62 What are the subunits of Capsids?**
 A. Capsomeres B. Flagella
 C. Hyphae D. Septa
- Q.63 An enzyme which requires a biological change in order to become active is called?**
 A. transferase B. zymogen
 C. hydrogenase D. trypsin
- Q.64 When two or more clearly different phenotypes exist in the same population of species, the phenomenon is called?**
 A. replication B. polymorphism
 C. gene linkage D. gene expression
- Q.65 Which of the following sections of a sarcomere does not shorten during contraction?**
 A. I band B. H zone
 C. A band D. none of these
- Q.66 The radial symmetry is found in the animals of which of the following?**
 A. Protozoa B. Porifera
 C. Cnidaria D. All of these
- Q.67 When resources get scarce, the population growth?**
 A. becomes fast B. slows down
 C. remains same D. none of these
- Q.68 According to Ivanovski what are soluble living germs?**
 A. Bacteria B. Viruses
 C. Fungi D. Both A and B
- Q.69 If both the alleles are the same with respect to genes then they are called?**
 A. heterozygous B. unicellular
 C. homozygous D. none of these
- Q.70 The part of chloroplast where CO_2 is fixed to manufacture sugar is?**
 A. stroma B. grana
 C. thylakoid D. outer membrane
- Q.71 It is the most energy rich compound**
 A. FADH_2 B. ATP
 C. NADH D. GTP
- Q.72 A single motor neuron may innervate as few as 3-5 fibers in muscles of:**
 A. upper arms B. legs
 C. eyes D. heart
- Q.73 Aquatic arthropods belonging to this class breathe through gills.**
 A. Insects B. Arachnids
 C. Crustaceans D. Arachnids and crustaceans
- Q.74 Which cells secrete flexible, elastic, non-living matrix collagen that surrounds the chondrocytes?**

- A. Osteocytes
C. chondrocytes
- B. Osteoclasts
D. Osteoblasts
- Q.75 Salamander belongs to which of the following class?**
A. pisces
C. reptiles
- B. aves
D. amphibians
- Q.76 Darwin described his theory of natural selection as which of the following?**
A. Punctuated equilibrium
C. Inheritance of acquired characteristics
- B. Survival of the fittest
D. Descent with modification
- Q.77 In which step is lysozyme released by the bacteriophage?**
A. Attachment
C. injection
- B. penetration
D. replication
- Q.78 In asexual reproduction offspring are genetically?**
A. Identical to the parents
C. Non identical to the parents
- B. Identical if mutations do not occur.
D. both a and b
- Q.79 Most reflex arcs are:**
A. Monosynaptic reflex
C. Hemi Synaptic Reflex
- B. Polysynaptic reflex
D. None of these
- Q.80 Nitrogenous bases such as choline and serine are a significant part of which of the following?**
A. Sphingolipids
C. Phosphodiester
- B. Phospholipids
D. none of these
- Q.81 The wings of a bird and the wings of a beetle are considered?**
A. taxonomic
C. homologous
- B. phylogenetic
D. analogous
- Q.82 The voice box leads to the trachea which is also called**
A. bronchi
C. Windpipe
- B. bronchioles
D. alveolar duct
- Q.83 What is the function of lysozyme enzyme released by bacteriophages?**
A. Injecting DNA
C. Dissolve bacterial cell wall
- B. Replication
D. All
- Q.84 The function of cell wall in prokaryotes is**
A. to give cells rigidity
C. to protect from osmotic lysis
- B. to give specific shape
D. all of Above
- Q.85 How many monosaccharide molecules do oligosaccharides yield upon hydrolysis?**
A. 2
C. 10
- B. 5
D. all of these
- Q.86 Carotenoids perform protective function in which of the following organism?**
A. Animal
C. Both
- B. Plants
D. None of these
- Q.87 Nutrition to egg in ovary is provided by which of the following?**
A. germ cells
C. follicle cells
- B. milk cells
D. all of these
- Q.88 Which portion of the brain is primarily responsible for transmitting the information to other parts of the nervous system?**
A. white matter
C. medulla
- B. Gray matter
D. All A, B and C
- Q.89 Gray matter is primarily composed of:**
A. axons
C. neuron somas
- B. synapse
D. None of these

- Q.90 What is the viral envelope is composed of?**
 A. Proteins B. Glycoproteins
 C. lipids and proteins D. All of the above
- Q.91 The nervous system of arthropods has:**
 A. A brain, a ventral nerve cord and several ganglia.
 B. A brain, a dorsal nerve cord and several ganglia.
 C. A brain, a dorsal and ventral nerve cord and several ganglia.
 D. A ventral nerve cord and several ganglia.
- Q.92 When vasopressin is not secreted, the condition that occurs is called?**
 A. Acromegaly B. Diabetes mellitus
 C. Dwarfism D. Diabetes insipidus
- Q.93 Which of these is a eucoelomate?**
 A. Earthworm B. Jelly fish
 C. Sycon D. Planaria
- Q.94 What was the correct classification according to Linnaeus?**
 A. Similar genera in one family B. Similar species in one genus
 C. Similar families in one order D. All of above
- Q.95 Many sarcomeres in series make up the length of a:**
 A. Microtubules B. Myofibril
 C. Myosin filament D. M-line
- Q.96 Koshland in 1959 proposed the modified form of which of the following?**
 A. Unit membrane model B. Fluid mosaic model
 C. Reflective index model D. Induced fit model
- Q.97 Extremely long molecule of DNA that is tightly folded to fit inside the cell component is called?**
 A. Nucleus B. Chromosome
 C. Chromatin body D. Chromatid
- Q.98 Breathing is considered as a:**
 A. Chemical process B. Biochemical process
 C. Mechanical process D. Both A and B
- Q.99 Which of the following best describes competitive inhibitors?**
 A. Do occupy active site
 B. Destroy the structure of enzyme
 C. Resemble structurally with substrate
 D. Both B and C
- Q.100 In a typical menstrual cycle of 28 days, what is the most likely fertile period?**
 A. Days 5 to 10 B. Days 1 to 5
 C. Days 14 to 15 D. Days 11 to 14
- Q.101 The membrane around the vacuole is known as?**
 A. Tonoplast B. Elaioplast
 C. Cytoplast D. Amyloplast
- Q.102 The infection of lungs is called**
 A. emphysema B. asthma
 C. pneumonia D. bronchitis
- Q.103 Interconversion of carbohydrates proteins and lipids in living cells are an example of?**
 A. Coordinated catabolic activities B. Coordinated anabolic activities
 C. both a and b D. none of these
- Q.104 Which type of bond is not form in maintaining the tertiary structure of proteins?**

- A. Ionic
C. Disulphide
- B. Hydrogen
D. Hydrophobic
- Q.105 The semi solid mass in stomach is known as:**
- A. Bolus
C. Serum
- B. Chyme
D. Food
- Q.106 Vertebrates belong to phylum chordata because:**
- A. They have a vertebral column.
C. The embryos have gills.
- B. The brain is enclosed by the skull.
D. The body develops from three germinal layers.
- Q.107 Which statement describes an incorrect difference between a plant cell and a bacterial cell?**
- A. Bacterial cell has 70S ribosomes whereas a plant cell has 80S ribosomes.
B. Bacterial cell divides by binary fission whereas a plant cell divides by mitosis.
C. Bacterial cells do not have a nuclear membrane whereas plant cells do.
D. None of the above.
- Q.108 What would be the resolving power of the objective length in a microscope if the eyepiece is 10X and total magnification is 40X?**
- A. 4
C. 40
- B. 10
D. 400
- Q.109 How much net gain of G3P is obtained after one calvin cycle?**
- A. 3
C. 2
- B. 6
D. 1
- Q.110 Two populations of the same species over time grow distant from one another. At what point will these two populations be considered different species?**
- A. When the populations begin to eat different foods
B. When there is a physical barrier, such as a river, between the two populations
C. When the two populations have not been in contact with one another for two hundred years
D. When they are no longer able to interbreed
- Q.111 Which of the following is the name of the modified endoplasmic reticulum found in muscle cells?**
- A. t-tubule
C. Myoplasmic reticulum
- B. Sarcomere
D. Sarcoplasmic reticulum
- Q.112 Carbohydrate catabolism is concerned with the fate of**
- A. ATP
C. Amino acid
- B. Glucose
D. all of these
- Q.113 The scrotum is responsible for which of the following in the male reproductive system?**
- A. Synthesis of sperm
C. Nourishment of sperm
- B. Lubrication
D. Temperature regulation
- Q.114 In Morgan's experiment when males and females of F1 generation mate with each other and produce F2 generation The number of red eyed males were:**
- A. 2059
C. 782
- B. 2459
D. 1101
- Q.115 Human embryo remains enclosed in:**
- A. Amniotic sac
C. Chorion
- B. Amnion
D. Allantois
- Q.116 Cholesterol is**
- A. Animal sterol
- B. $C_{27}H_{46}O$

- C. 5 methyl groups
D. All of these
- Q.117 Which type of bonds are never formed when a substrate fits into the active site of an enzyme?**
A. Hydrogen bonds
B. Ionic interactions
C. Hydrophobic interactions
D. Covalent linkages
- Q.118 In some cases, the blastomere can produce complete embryo the cleavage will be**
A. Spiral and determinate
B. Spiral and indeterminate
C. Radial and determinate
D. Radial and indeterminate
- Q.119 Primordial soup is a set of hypothetical conditions on ancient earth first proposed by?**
A. Dmitri Ivanovsky
B. Dmitry Anuchin
C. Nikolay Shatsky
D. Alexander Oparin
- Q.120 Gibberellins may be substituted for which color of light, therefore promote flowering in long day plants?**
A. Red
B. Blue
C. Green
D. White
- Q.121 Which of these is involved in coordinated movements of the body?**
A. Cerebellum
B. Cerebrum
C. Medulla
D. Pons
- Q.122 It uses the single strand RNA as a template for making double stranded DNA**
A. DNA polymerase
B. DNA ligase
C. Reverse transcriptase
D. All of these
- Q.123 These are largest animal viruses**
A. HIV
B. Poxviruses
C. Covid-19
D. HBV
- Q.124 True bacteria are termed as**
A. Eubacteria
B. Archacbacteria
C. Cyanobacteria
D. None of above

PHYSICS

- Q.125 Ohm's Law is applicable only when temperature remains**
A. Changing
B. Absolute zero
C. Constant
D. None of these
- Q.126 If a charge of 2C is moving with 5m/s enter at 30° in 3 T, calculate the force experienced by it**
A. 10N
B. 15N
C. 20N
D. 30N
- Q.127 Which of the following are component of half wave rectifier?**
A. Transformer
B. Load resistance
C. Power supply
D. All of the above
- Q.128 Which of the following is not an assumption of the kinetic model of an ideal gas?**
A. The size of the molecules is much smaller than the separation between molecules
B. Molecules suffer negligible momentum change during wall collisions.
C. Molecules do not exert force on each other except during a collision.
D. The gas molecules are in random motion and may change their direction of motion after every collision
- Q.129 The angular displacement of an object after one complete revolution is:**

- A. 0 radian
C. 2π radian
- B. π radian
D. $(1/3)\pi$ radian
- Q.130 Coulomb force is a**
A. Short range force
C. Medium range force
- B. Long range force
D. None of these
- Q.131 Motional emf induced in a coil is dependent on**
A. Magnetic field
C. Length
- B. Orientation
D. All of these
- Q.132 Work function depends on:**
A. Metals only
C. Both metals and nature of surface
- B. Nature of surface only
D. Threshold frequency
- Q.133 Formula for Power is**
A. $P=IV$
C. $p=V+I$
- B. $P=V/I$
D. $p=VQ$
- Q.134 Three types of radioactive elements are emitted when unstable nuclei undergo radioactive decay. Which of the following is not one of them?**
A. alpha
C. gamma
- B. beta
D. delta
- Q.135 Radiations are classified by its _____ nature**
A. Ionizing
C. Both a and b
- B. Non ionizing
D. Radiations cannot be classified
- Q.136 In which rectifier ripple factor is less**
A. full wave
C. both A and B
- B. half wave
D. none of them
- Q.137 Force on a proton of charge $2e$ in a magnetic field of B at 45° while moving with 2 m/s is**
A. $2\sqrt{2} eB$
C. $2eB$
- B. $4eB$
D. eB
- Q.138 In a lamp load when more than one lamp are switched on the total resistance of the load**
A. Increases
C. Remains same
- B. Decreases
D. None of the above
- Q.139 If an object is undergoing an orbital motion around another object it is called**
A. Revolution
C. Both of them
- B. Rotation
D. None of them
- Q.140 Formula for electric field intensity is**
A. $E=F/q$
C. $E=F/3q$
- B. $E=3F/2q$
D. None of them
- Q.141 A fixed mass of an ideal gas is contained in a cylinder at constant temperature. Now the pressure of the gas is decreased. What happened to the molecules of gas?**
A. their mean square speed decreases
B. Number of collision between molecules and walls of container decreased
C. The force of attraction between them increase
D. Their size decreases
- Q.142 A body of mass 10 kg moving at a height of 2 m , with uniform speed of 2 m/s . Its total energy is**
A. 316 J
C. 392 J
- B. 216 J
D. 416 J

- Q.143 Electric field lines due to a positive charge are: ...**
 A. Always horizontal
 B. Always vertical
 C. Radially towards the charge
 D. Radially away from the charge
- Q.144 The source of x-rays generation is**
 A. Cu
 B. H
 C. Na
 D. Al
- Q.145 Which of the following is not unit of power?**
 A. horse power
 B. kilowatt
 C. kWh
 D. Nm/s
- Q.146 Which radiation is used in smoke detectors?**
 A. alpha
 B. beta
 C. gamma
 D. all of these
- Q.147 Step up transformer have _____ turns in secondary coil**
 A. more
 B. less
 C. equal
 D. zero
- Q.148 In a Young's double-slit experiment, fringes are very close to each other. How can we increase the distance between fringes?**
 A. by increasing the distance between light source and slits
 B. by increasing the distance from slits to the screen
 C. by increasing the distance between slits
 D. by increasing the frequency of light
- Q.149 If the supply frequency of a transformer increases, the secondary output voltage of the transformer**
 A. Increases
 B. Decreases
 C. Remains unchanged
 D. Any of above
- Q.150 Wave nature of light is proved by:**
 A. Polarisation
 B. Black body radiation
 C. Compton's effect
 D. Photoelectric effect
- Q.151 Displacement of sun with respect to earth is**
 A. r
 B. $2\pi r$
 C. $2r$
 D. r^2
- Q.152 Instantaneous velocity is**
 A. Always positive
 B. Always negative
 C. Positive and negative
 D. Not enough info
- Q.153 If a rotating body is moving anti-clockwise, the direction of angular velocity is**
 A. Towards the centre
 B. Along the linear velocity
 C. Away from the centre
 D. Perpendicular to both radius and linear velocity
- Q.154 Two forces of 5 N and 15 N are working on a body in opposite direction. If body displaced by 5 m in direction of net force, what will be the work done by net force**
 A. 50 J
 B. - 50 j
 C. 25 J
 D. 100 J
- Q.155 A force which acts on an object moving in a circle and is directed towards the center of the circle is called**
 A. Bending Force
 B. Centripetal Force
 C. Centrifugal force
 D. None of these
- Q.156 In electron microscope image formed is**

- A. 2D
C. 1D
- B. 3D
D. Any of these
- Q.157 Beats can be used to find:**
- A. Speed
C. Amplitude
- B. Frequency
D. Wavelength
- Q.158 Charged body attracts uncharged body by ___ induction**
- A. Electrostatic
C. Both A and B
- B. Magnetic
D. None of these
- Q.159 The basic purpose of filter is to**
- A. Minimize variation in ac signal
B. Suppress harmonics in rectified output
C. Remove ripples from the rectified output
D. Stabilize dc output voltage
- Q.160 In a simple pendulum work done by the tension force is**
- A. Positive
C. Zero
- B. Negative
D. None of these
- Q.161 Which metal is used to detect radioactivity?**
- A. Heavy metal
C. Hydrogen gas
- B. Mercury metal
D. None of these
- Q.162 Minimum energy required for pair production is:**
- A. 939 MeV
C. 1.02MeV
- B. 942 MeV
D. 0.511MeV
- Q.163 Which of this is constant in isochoric process?**
- A. Total heat
C. Entropy
- B. Work done
D. Internal energy
- Q.164 A gas expands from V_1 to V_2 at pressure P . Work done is**
- A. $P/(V_2-V_1)$
C. $P(V_1V_2/(V_2-V_1))$
- B. $(P_2-P_1) V$
D. $P(V_2-V_1)$
- Q.165 The pendulum of a certain pendulum clock is made of brass. When the temperature increases, what happens to the period of the clock?**
- A. It increases
C. It remains the same
D. it decreases with the square of temperature
- B. It decreases
- Q.166 When a standing wave is set up on a string fixed at both ends, 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 \times fundamental frequency
- Q.167 In a stationary wave, the distance between a node and consecutive antinode is:**
- A. A quarter of wavelength
C. One wavelength
- B. 3/4 of wavelength
D. Half of wavelength
- Q.168 Which of the following cases (if any) requires the greatest amount of heat? In each case the material is the same.**
- A. 1.5 kg of the material is to be heated by $7.0\text{ }^\circ\text{C}$
B. 3.0 kg of the material is to be heated by $3.5\text{ }^\circ\text{C}$
C. 0.50 kg of the material is to be heated by $21\text{ }^\circ\text{C}$

D. The amount of heat required is the same in each of the three previous cases

- Q.169** One rpm is equal to _____ 0.10472 rad/sec
A. 2
B. 1.5
C. 2.5
D. 0.105
- Q.170** The interference of green photon to red photon will cause
A. Spectrum
B. Interference
C. Diffraction
D. No effect
- Q.171** If displacement = 15 m and time t= 10 seconds, then average velocity is
A. 12.5 m/s
B. 1.5 m/s
C. 2.5 m/s
D. 3m/s
- Q.172** Magnetic flux is maximum when angle is
A. 0°
B. 90°
C. 120°
D. all of these
- Q.173** Ten complete waves pass through a point in 2 seconds. If the wavelength is 20 cm, what is the speed of the wave?
A. 1 m/s
B. 10 cm/s
C. 2 m/s
D. 40 cm/s
- Q.174** A glass block is immersed in a tank which is filled with a liquid of higher refractive index. Light is incident from the liquid on one side of glass block at an angle greater than critical angle. Which of the following statements are true?
A. light is partially transmitted into the glass block bending towards the normal and partially reflected
B. light is partially transmitted into the glass block bending away from the normal and partially reflected
C. light is completely transmitted into the glass and did not reflect in to the liquid
D. light is completely reflected back into the liquid
- Q.175** Internal resistance of a battery is _____ ohm, if, $E=10V$, $V_t=9V$, $I= 1A$
A. 1
B. 0.1
C. 0.01
D. None of these
- Q.176** Maximum power delivered by battery is
A. $P_{max} = E^2/4r$
B. $P_{max} = 4rE^2$
C. $P_{max} = VIT$
D. unlimited
- Q.177** The total mass of protium deuterium and tritium is ___ than three H atoms
A. 3 neutrons
B. 3 protons
C. 3 electrons
D. None of these
- Q.178** A full wave rectifier is operating from 50 Hz mains. Fundamental frequency of ripple will be
A. 100 Hz
B. 25Hz
C. 50Hz
D. 200Hz
- Q.179** The Lenz's law refers to
A. Induced current
B. Induced potential
C. Motional emf
D. All of these
- Q.180** The fast-moving electrons stopped by a heavy metallic target in an evacuated glass tube, give rise to the production of:
A. α - particles
B. X-rays
C. Laser
D. β - particles

ENGLISH

Q.181 It _____ me a lot of money.

- A. I don't like this one bit said Jamil.
- B. "I don't like this one bit," said Jamil.
- C. "I don't like this one bit?" said Jamil.
- D. I don't like this one bit, said Jamil.

Q.196 The robber broke into the house and _____ (tie) the lone occupant with ropes.

- A. tied
- B. ties
- C. tie
- D. tying

Q.197 The dog sprang _____ him.

- A. on
- B. upon
- C. in
- D. over

Q.198 Everyone who was injured in the accident was taken to the hospital

- | A | B | C | D |
|-----------------------------|--------------------|---|---|
| A. Everyone who was injured | B. in the accident | | |
| C. was taken | D. to the hospital | | |

Q.199 Everyone _____ done his or her homework.

- A. has
- B. have
- C. had
- D. none

Q.200 _____ icon like this is called _____ hourglass

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

LOGICAL REASONING

Q.201 Statement:

I. The school authority has asked the FSc students to attend special classes to be conducted on Sundays.

II. The parents of the FSc students have withdrawn their wards from attending private tuitions conducted on Sundays.

- 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.202 Find the different one

- A. Mother
- B. Sister
- C. Maid
- D. Aunt

Q.203 Statement

I. In a specific area of a country an acute famine have appeared

COURSE OF ACTION:

I. Major facilities of water and food should be provided straight away in that area. II. Financial support should be given to bothered individuals to the from the Government.

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

Q.204 From the following which word does not belong to the others

- A. Index
- B. Book
- C. Glossary
- D. Chapter

Q.205 Four people were witnessed as assaulted at an incident. Each of them have their own description of the scene. Which one will be probably right?

- A. He was average height, thin, and middle aged.

- B. He was tall, thin, and middle aged
- C. He was tall, thin and young
- D. He was tall, of average weight, and middle aged.

Q.206 STATEMENTS:

- I. The dialogue between Jinnah and Gandhi failed.**
- II. Indian National Congress and Muslim League tried to join hands, so they will be united.**

- 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 statements I and II are independent causes
- D. Both statements I and II are the effects of independent cause.

Q.207 STATEMENT:

- I. An interior minister has been found as the owner of assets more than the stated income.**

- II. The prime minister has ordered all the ministers to unveil their assets.**

- 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 statements I and II are independent causes
- D. Both statements I and II are the effects of independent cause.

Q.208 Statements: - $A > B$, $B \geq C$, $C < D$

- Conclusions (I) $A > C$ (II) $A = C$**

- A. Only I is true
- B. Only II is true
- C. Either I or II true
- D. Neither I nor II is true

Q.209 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.210 Complete the series A2, B4, C8, D16, E?

- A. 32
- B. 34
- C. 36
- D. 38