

# PMC PAID PRACTICE TEST 03

## SOLVED

### BIOLOGY

- Q.1** In all plants the major sites of photosynthesis are?  
**A. Leaf** B. Stems  
C. Roots D. Branches
- Q.2** The set of all genes in any population is termed as?  
A. population pool B. species pool  
**C. gene pool** D. all of these
- Q.3** Assymetrical body is a feature of phylum \_\_\_\_\_ .  
A. Annelida B. Arthropoda  
**C. Porifera** D. Cnidaria
- Q.4** A condition with abnormal amount of fats is called:  
A. anorexia B. botulism  
C. piles **D. obesity**
- Q.5** Evaporation of water from aerial parts of plants is called:  
**A. ascent of sap** B. deplasmolysis  
C. deplasmolysis D. none of these
- Q.6** The uterus of the female reproductive system opens into the?  
A. placenta **B. birth canal**  
C. cervix D. all of these
- Q.7** The thalamus and the hypothalamus are located in which region of the brain?  
A. brain stem B. cerebrum  
C. cerebellum **D. Diencephalon**
- Q.8** Which of the following structure provides greater pathogenicity to the bacteria?  
**A. slime** B. cell wall  
C. cell membrane D. capsule
- Q.9** This is a reduced compound  
A. CO<sub>2</sub> B. O<sub>2</sub>  
**C. NADH** D. NAD<sup>+</sup>
- Q.10** Synaptic vesicles discharge which hormone at the neuromuscular junction?  
**A. acetylcholine** B. adrenaline  
C. estradiol D. testosterone
- Q.11** Photosystems are located in \_\_\_\_\_ .  
A. Stroma B. Chloroplast envelope  
**C. Thylakoid membranes** D. The intergrana
- Q.12** In enzymatic mechanism, the substrate bind to enzyme active site to produce?  
A. Reactants B. Enzymes  
**C. Products** D. All of these
- Q.13** The frequency of allele if it is evolutionary successful is?  
**A. increased** B. decreased  
C. no change D. none of these
- Q.14** Protein coat of a virus enclosing nucleic acid is called?  
A. Vector **B. Capsid**  
C. Plasmid D. Genome

- Q.15 Urethra and vagina have \_\_\_\_\_ openings to the exterior:  
 A. common **B. independent**  
 C. Both A and B D. None of these
- Q.16 Which of the following changes length during sarcomere contraction?  
 A. Thick filaments B. Thin filaments  
**C. H zone** D. all of these
- Q.17 A structural component that is found in all viruses is?  
 A. envelope B. DNA  
**C. Capsid** D. Tail Fibers
- Q.18 Which of these is not a reflex action?  
**A. Secretion of sweat** B. salivation  
 C. Flexion due to needle prick D. blinking of eyes due to strong light
- Q.19 Smooth endoplasmic reticulum is abundant in which types of cells?  
**A. lipid metabolism** B. protein metabolism  
 C. glucose metabolism D. calcium metabolism
- Q.20 Cytochromes are electron transport intermediates containing?  
 A. myoglobin **B. hcam**  
 C. globulin D. fibrin
- Q.21 When was the Tobacco mosaic virus successfully crystalized?  
**A. 1935** B. 1930  
 C. 1932 D. 1920
- Q.22 Which of the following is false about conjugation?  
 A. It forms a bridge between two bacterial cells  
 B. It involves transport of genetic material via vectors  
 C. It is a form of sexual reproduction  
**D. Both A and B**
- Q.23 During inspiration, the diaphragm:  
**A. Contracts** B. Relaxes  
 C. Contracts and relaxes D. None of these
- Q.24 Glycophorin is involved in which of the following disease?  
 A. viral fever B. common cold  
 C. asthma **D. malaria**
- Q.25 Which of the following is an example of a marine annelid?  
**A. Neries** B. Stylaria  
 C. Earthworm D. Leech
- Q.26 Two pea plants are crossed. One plant is homozygous dominant for purple flowers, and the other is homozygous recessive for white flowers. What fraction of the F2 population will have white flowers?  
**A. 1/4** B. 1/2  
 C. 1/8 D. 1/16
- Q.27 In the process of esterification OH is derived from?  
 A. Ether **B. Alcohol**  
 C. Water D. Both A and B
- Q.28 The enzyme which plays important role in HIV pathogenesis  
 A. RNA polymerase I B. DNA polymerase II  
 C. Reverse Transcriptase I **D. Reverse Transcriptase**

- Q.29** A monohybrid cross yielded 3:1 in F<sub>2</sub>. What could be mode of inheritance?  
**A. segregation** B. independent assortment  
 C. Both A and B D. none of these
- Q.30** This group of animals has three bones in the ear.  
 A. Reptiles **B. Mammals**  
 C. Both reptiles and mammals D. Birds and mammals
- Q.31** What happens during muscle contraction to the length of each myosin and actin filament?  
 A. A band becomes short B. I band elongates  
 C. There is no change in sarcomere **D. Z- lines get closer**
- Q.32** Lymphocytes are found in:  
 A. Lymph capillary B. Lymph vessel  
 C. Lymph trunk **D. lymph node**
- Q.33** The presence of peptidoglycan in Gram positive bacteria is  
 A. 40% of dry weight **B. 50% of dry weight**  
 C. 10% of dry weight D. 80% of dry weight
- Q.34** If the non-protein part is loosely attached to the protein part in the enzyme, it is known as?  
**A. coenzyme** B. prosthetic group  
 C. cofactor D. apoenzyme
- Q.35** Enzymes for light-dependent reactions of photosynthesis would most likely be associated with:  
 A. Outer membrane of the chloroplast  
 B. Inner membrane of the chloroplast  
 C. Stroma of the chloroplast  
**D. Thylakoid membranes of the chloroplast**
- Q.36** The ETC in plants consists of an electron carrier called?  
**A. Pq** B. Pc  
 C. Pt D. Po
- Q.37** The muscle contraction depends on:  
 A. Nerve impulse B. Energy  
 C. Calcium **D. All of these**
- Q.38** The cell organelles involved, in some cases, with extra-cellular digestion  
 A. Golgi complex **B. Lysosomes**  
 C. Peroxisomes D. Glyoxysomes
- Q.39** Which of the following genetic diseases is caused by mutations in a membrane protein?  
 A. Alzheimer's disease B. Parkinson's disease  
 C. Anemia **D. Hemolytic anemia**
- Q.40** Which of the following is true of both bacterial conjugation and meiosis?  
 A. Both processes produce four haploid cells  
 B. Both processes are a form of asexual reproduction  
**C. Both processes involve genetic recombination**  
 D. None of these
- Q.41** The period during which a girl sexually matures is called  
 A. Menstrual cycle **B. Puberty**  
 C. Childhood D. Teens

- Q.42** Antibodies play important role against microorganisms and other pathogens to which type of proteins do they belong?  
 A. Globular  
 B. Functional  
 C. Fibrous  
 D. Both A and B
- Q.43** The animals in which there are separate male and female individuals are called?  
 A. Unisexual  
 B. bisexual  
 C. Asexual  
 D. hermaphrodite
- Q.44** To produce ATP (adenosine triphosphate) in muscles, creatine phosphate (CP) transfers \_\_\_\_\_ to adenosine diphosphate (ADP).  
 A. Oxygen  
 B. Adenosine  
 C. Cytosine  
 D. Phosphate
- Q.45** Which was the first virus to be successfully crystallized?  
 A. TMV  
 B. Smallpox  
 C. Poliovirus  
 D. Adenovirus
- Q.46** The path of electrons through the two photosystems is called?  
 A. S scheme  
 B. X scheme  
 C. Z scheme  
 D. Y scheme
- Q.47** The T-lymphocytes and B-lymphocytes are the major cells of the:  
 A. Thymus  
 B. Lymph nodes  
 C. Adrenal glands  
 D. Lymphatic vessels
- Q.48** Octopus belongs to phylum mollusca because:  
 A. It has suckers and tentacles.  
 B. It has a soft body covered by a shell.  
 C. It has a soft, unsegmented body with a thin, flexible internal shell.  
 D. It has a soft, segmented body with a head and a foot.
- Q.49** In reproduction, semen refers to which of the following?  
 A. fluid and sperms  
 B. Blood and water  
 C. Blood and sperms  
 D. Blood and fluid
- Q.50** How does each photoexcited electron pass from PS1 to PS2?  
 A. ETC  
 B. chemiosmosis  
 C. photolysis  
 D. photosynthesis
- Q.51** Which of the following is the respiratory surface in human beings?  
 A. Lungs  
 B. Alveoli  
 C. Windpipe  
 D. alveolar duct
- Q.52** The patellar reflex and the Achilles reflex are examples of:  
 A. Monosynaptic reflex  
 B. Polysynaptic reflex  
 C. Hemi Synaptic reflex  
 D. Both A and B
- Q.53** \_\_\_\_\_ are among smallest known virus  
 A. Picornavirus  
 B. Parvoviruses  
 C. Herpes virus  
 D. Rotavirus
- Q.54** Structures that were once functional in the past but no longer serve a purpose due to evolutionary adaptations and physiological changes are referred to as?  
 A. Vestigial  
 B. Analogous structures  
 C. Homologous structures  
 D. None of these
- Q.55** Complete breakdown of glucose molecule takes place in which of the following?  
 A. Alcoholic fermentation  
 B. Lactic acid fermentation  
 C. Aerobic respiration  
 D. None of these

- Q.56 Which of the following movements are possible in pivot joint?**  
 A. Flexion and extension  
 B. Adduction and abduction  
 C. Rotation  
 D. Extension flexion and rotation
- Q.57 Which of the following is paired correctly?**  
 A. Pisces- jellyfish  
 B. Echinodermata- cuttlefish  
 C. Mollusca- starfish  
 D. Arthropoda- silver fish
- Q.58 Which of the following is incorrect for ascent of sap?**  
 A. water potential  
 B. cohesion tension  
 C. root pressure  
 D. imbibition
- Q.59 Which of the following is not an evidence for evolution?**  
 A. Fossil record  
 B. Common ancestor organisms  
 C. Vestigial structures  
 D. none of these
- Q.60 The part of spinal cord where interneurons present is called:**  
 A. White matter  
 B. Gray matter  
 C. lumbar enlargement  
 D. cervical enlargement
- Q.61 These are properties of lipids \_\_\_\_\_**  
 A. Insoluble in water and soluble in fat solvent.  
 B. High energy content  
 C. Structural component of cell membrane  
 D. All of these
- Q.62 The animals that have features of both mammals and reptiles are?**  
 A. Duckbill platypus  
 B. Spiny anteater  
 C. Wolves  
 D. Both A and B
- Q.63 What event occurs in the menstrual cycle when the level of progesterone declines?**  
 A. Ovulation  
 B. Menstruation  
 C. Menopause  
 D. Fertilization
- Q.64 Which of the following conditions is not required to be true for a population in Hardy-Weinberg equilibrium?**  
 A. Random mutations  
 B. Large population  
 C. No natural selection  
 D. Random mating
- Q.65 Which of the following statements about the systemic affect of bacterial cells are true?**  
 A. Gram-negative bacteria are more likely to cause systemic effects because their lack of an outer membrane means they can more quickly infect host cells.  
 B. Gram-negative bacteria are more likely to cause systemic effects because their outer membrane protects them from antibiotics  
 C. Both A and B  
 D. None of these
- Q.66 Which one of the following is a non-protein group covalently bonded to a few respiratory enzymes among others?**  
 A. Nicotine adenine dinucleotide  
 B. Flavin adenine dinucleotide  
 C. Nicotinamide adenine dinucleotide phosphate  
 D. All of the above
- Q.67 What is the property of the part of a cell membrane which is in contact with external and internal environment?**  
 A. hydrophobic  
 B. hydrophilic  
 C. neutral  
 D. Both A and B

- Q.68 The spinal cord consist of which type of cell bodies?  
A. sensory neuron  
B. motor neuron  
C. connector neuron  
D. all of these

## PHYSICS

- Q.69 The oscillating object overshoots the rest position due to:  
A. Restoring force  
B. Inertia  
C. Gravitational potential energy  
D. Elastic potential energy
- Q.70 \_\_\_\_\_ relationship exists between current and voltage in terms of Ohm's law  
A. Nonlinear  
B. Varying  
C. Linear  
D. None of them
- Q.71 The nucleus is made up of more neutrons than protons  
A. H  
B. O  
C. U  
D. None of these
- Q.72 The black body always \_\_\_\_\_ radiations  
A. Emit  
B. Absorb  
C. Both A and B  
D. Reflects
- Q.73 An electrical instrument which is used to measure potential difference between two points is called  
A. Barometer  
B. Manometer  
C. Galvanometer  
D. Voltmeter
- Q.74 The frequency of applied A.C is 2 K.Hz. Its time period will be  
A.  $0.5 \times 10^{-3}$  sec  
B. 0.5 second  
C. 5 sec  
D. 2 sec
- Q.75 Velocity is a  
A. tensor  
B. vector  
C. scalar  
D. None of these
- Q.76 Effect of work is equal to  
A. Change in total energy  
B. change in kinetic energy  
C. change in power  
D. none of these
- Q.77 The electron volt is the unit of \_\_\_\_\_  
A. electric current  
B. electric potential  
C. electric energy  
D. electric flux
- Q.78 Which of the following frequency of sound wave is audible?  
A. 5 Hz  
B. 5000 Hz  
C. 2500 kHz  
D. 50 kHz
- Q.79 Rectifier is a device which converts  
A. AC to DC  
B. DC to AC  
C. AC to triangular current  
D. DC to triangular current
- Q.80 The value of universal gas, R, constant is \_\_\_\_\_  
A.  $8.314 \text{ J/mol} \times \text{K}$   
B.  $1.38 \times 10^{-23} \text{ J/K}$   
C.  $6.63 \times 10^{-11} \text{ Nm}^2/\text{kg}^2$   
D.  $1.6 \times 10^{-19} \text{ C}$
- Q.81 Which of the following is the same for isotopes?  
A. neutrons  
B. protons  
C. electrons  
D. all of them
- Q.82 What is the maximum electron energy in neutron beta decay?  
A. 783 eV  
B. 783 KeV  
C. 783 GeV  
D. 783 Tev

- Q.83** Protons and neutrons are composed of smaller particles called  
**A. Quarks** B. baryons  
 C. bosons D. photons
- Q.84** A loop of radius 1 m is placed on a inclined of 60 degree with the magnetic field of 100 T, corresponding flux will be  
 A. 314 wb B. 107 wb  
**C. 157 wb** D. 435 wb
- Q.85** An air pipe opens at both ends. A stationary wave is produced in second harmonic mode. What is the phase difference between the motion of the particles at the end of the pipe and at the centre of the pipe.  
 A.  $0^\circ$  B.  $90^\circ$   
**C.  $180^\circ$**  D.  $270^\circ$
- Q.86** The activity of a radioactive isotope decreases from 8000 to 10000 in 60 days. The half life of isotope will be  
 A. 10 year **B. 20 years**  
 C. 30 years D. 40 years
- Q.87** Coherent source of light means  
 A. multiple wavelength B. double wavelength  
**C. single wavelength** D. coherent photons
- Q.88** In case of spectrometer circular scale, graduated in half degree, is attached with  
 A. Telescope **B. Turntable**  
 C. Cross wire of telescope D. None of these
- Q.89** Maximum efficiency of half wave rectifier is  
 A. 80.6 % **B. 40.60%**  
 C. 70% D. 50%
- Q.90** Two identical gases expand  
 i) isothermally  
 ii) adiabatically.  
 Work done is more in  
**A. Isothermal process** B. Adiabatic process  
 C. Neither of them D. Equal in both cases
- Q.91** The source of gamma radiation is  
 A. outside nucleus **B. inside nucleus**  
 C. electron transition D. none of these
- Q.92** If a proton, alpha particle and photon moving with same velocity enter in uniform magnetic field then which particle will deflect more  
 A. proton **B. alpha particle**  
 C. photon D. all of these
- Q.93** A cubic vessel of height 1 m is full of water, the minimum work done in taking water out  
 A. 500 J B. 1000 J  
 C. 5 J **D. 10 J**
- Q.94** Woolen clothes keep the body warm because of  
**A. bad conductivity** B. good conductivity  
 C. low temperature D. none of these
- Q.95** The open-circuit test in a transformer is used to measure  
 A. Copper loss B. winding loss  
 C. Total loss **D. core loss**

- Q.96** Frequency of a travelling wave is 2000 Hz. Its speed is 300m/s. What is its wavelength?  
 A.  $20/3$  m  
**C.  $3/20$  m**  
 B.  $20 \times 3$  m  
 D.  $2/3$  m
- Q.97** Which statement is incorrect?  
 A. In an isobaric process  $\Delta P=0$   
 B. In an isochoric process  $\Delta W=0$   
 C. In an isothermal process  $\Delta T=0$   
**D. In an isothermal process  $\Delta Q=0$**
- Q.98** The engine is supposed to work between 727 degree C and 227 degree C, then maximum possible efficiency is  
**A.  $1/2$**   
 B.  $1/4$   
 C.  $3/4$   
 D. 1
- Q.99** Correct form of ohm's law  
 A.  $I = VR$   
 B.  $V \propto I$   
 C.  $V = IR$   
**D. Both B and C**
- Q.100** If the instantaneous current in a circuit is given by  $I = A \sin(\omega t)$  ampere, the rms value of the current is:  
 A. 2A  
**B.  $\frac{A}{\sqrt{2}}$**   
 C.  $2\sqrt{2}$  A  
 D. zero
- Q.101** If we are moving with constant velocity frame then the inertial state is same as  
**A. rest frame**  
 B. accelerating frame  
 C. non-inertial frame  
 D. All of these
- Q.102** An object is moving at constant speed, which of the following is always true:  
**A. Distance is greater than displacement**  
 B. Distance is lesser than displacement  
 C. Distance is equal to displacement  
 D. We cannot answer
- Q.103** When a spring is stretched, work done by stretching force is  
**A. positive**  
 B. negative  
 C. zero  
 D. none of these
- Q.104** You have three capacitors, each of  $2 \mu\text{C}$ . In which of the following combinations of the three capacitors, the resultant capacitance is  $6\mu\text{C}$ ?  
 A. All three capacitors in series  
 B. Two capacitors are in series, one in parallel  
 C. Two capacitors are in parallel, one in series  
**D. All three capacitors in parallel**
- Q.105** The use of a capacitor filter in a rectifier circuit gives satisfactory performance only when the load  
 A. Current is high  
**B. Current is low**  
 C. Voltage is high  
 D. Voltage is low
- Q.106** An object is displaced from point A (0,1,1) m to point B (1,4,3) m under a constant force  $F = (i + 2j + 3k)$ . find the work done by this force in this process  
**A. 13 J**  
 B. 15 J  
 C. 0  
 D. 13 J
- Q.107** When bulb is turned on, ohm's law is applicable  
 A. Yes  
**B. No**  
 C. partly  
 D. None of these

- Q.108** A wave passes through a medium, each particle of the medium performs 100 complete vibrations in 5 seconds. What is the frequency of the wave:  
 A. 2 Hz  
 B. 20 Hz  
 C. 4 Hz  
 D. 40 Hz
- Q.109** Identify the factor on which mutual inductance does not depend.  
 A. Relative orientation  
 B. Relative separation of two coils  
 C. Reciprocity  
 D. Permeability of the core material
- Q.110** What force provides the centripetal force to planets moving around the sun?  
 A. coulomb force  
 B. gravitational force  
 C. magnetic force  
 D. none of these
- Q.111** Electrostatic force is  
 A. Nonconservative  
 B. Conservative  
 C. Depends on shape of charge  
 D. None of these
- Q.112** A beam of electrons can  
 A. reflect  
 B. refract  
 C. both  
 D. none of these
- Q.113** A stationary wave is setup on a string of length 10 cm. Four loops are formed. what is the distance between two consecutive crests?  
 A. 4.5 cm  
 B. 5 cm  
 C. 2.5 cm  
 D. 1.25 cm
- Q.114** A galvanometer acting as a voltmeter will have a coil with  
 A. A high resistance in parallel  
 B. A high resistance in series  
 C. A low resistance in parallel  
 D. A low resistance in series
- Q.115** The centripetal force is zero when centrifugal force is  
 A. equal  
 B. zero  
 C. maximum  
 D. none of these
- Q.116** 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 cycle do on the road  
 A. 2000 J  
 B. -2000 J  
 C. 0  
 D. 200 J
- Q.117** 100 W heater is used for 5 minutes to heat some water from 20C to 50C. What is the mass of water which is heated? Specific heat capacity of water is 4.2 J/gC.  
 A. 4 g  
 B. 40 g  
 C. 240 g  
 D. 24 g
- Q.118** If the clouds of earth behaves like a black body what will happen  
 A. no light will reach on surface  
 B. extra light will reach the surface  
 C. nothing will happen  
 D. some will reflect some will absorbed
- Q.119** Negative of potential gradient is equal to:..  
 A. electricity intensity  
 B. electric flux  
 C. magnetic intensity  
 D. magnetic flux
- Q.120** Mass  $m_1$  has a velocity of 0m/s and mass  $m_2$  has a velocity of 5 m/s. Mass  $m_1 > m_2$ . Which one has larger interior?  
 A.  $M_2$   
 B.  $M_1$   
 C. Both  $M_1$  and  $M_2$   
 D. Not enough information

- Q.121 A pendulum undergoes simple harmonic motion. The phase difference between the displacement and the acceleration of the particle is:  
 A. 0  
 B.  $\pi/2$   
 C.  $\pi$   
 D.  $3\pi/2$
- Q.122 As mass number increases, which of the following does not change  
 A. mass  
 B. density  
 C. volume  
 D. binding energy
- Q.123 What is the power of a bulb if it is operated at 220V and the current in the circuit is 1.5 Amp  
 A. 330-watt  
 B. 430 watt  
 C. 530-watt  
 D. 500 watt
- Q.124 Motional emf can be produced with  
 A. Changing magnetic field in space  
 B. Changing magnetic field in time  
 C. Changing flux with space  
 D. Constant magnetic field

## CHEMISTRY

- Q.125 Standard electrode Potential is denoted by  
 A. E  
 B.  $E^{-1}$   
 C.  $E^0$   
 D.  $\delta$
- Q.126 What is the coordination number of Pt in  $[PtCl(NO_2)(NH_3)_4]$   
 A. 2  
 B. 4  
 C. 6  
 D. 7
- Q.127 Limiting reactant controls the amount of \_\_\_\_\_  
 A. Reactant  
 B. Products  
 C. Both A & B  
 D. None of these
- Q.128 Which of the following element is not usually present in all proteins?  
 A. Carbon  
 B. Hydrogen  
 C. Nitrogen  
 D. Sulphur
- Q.129 The biochemical process used in the synthesis of alcohol in the presence of yeast is called as \_\_\_\_\_?  
 A. Respiration  
 B. Photosynthesis  
 C. Fermentation  
 D. Aerobic respiration
- Q.130 First member of alkynes is called as \_\_\_\_\_?  
 A. Ethylene  
 B. Acetylene  
 C. Acetone  
 D. Ethene
- Q.131  $BH_3$  has a geometry with H–B–H bond angles of 120°  
 A. Linear  
 B. Trigonal planar  
 C. Tetrahedron  
 D. Bent
- Q.132 Cyclic compounds consist of except?  
 A. Alicyclic  
 B. Aromatic  
 C. Acyclic compounds  
 D. Carbocyclic compounds
- Q.133 Metals look shiny as light falls on metal surface collide with mobile electrons and make them \_\_\_\_\_ these electron gives light when \_\_\_\_\_  
 A. Neutral. Excited  
 B. Excited, de-excited  
 C. De-excited, excited  
 D. None of these
- Q.134 Why phenol is more acidic than Alcohol?  
 A. Due to presence of resonance in phenol  
 B. Due to absence of resonance of in alcohol  
 C. Both A and B  
 D. Because in phenol H is attach to O

- Q.135** If pressure and volume of a gas are variable while temperature remains constant, this belongs to
- A. Charles's law  
B. Boyle's law  
C. Avogadro's law  
D. Pascal's law
- Q.136**  $SN_1$  reactions are favored by which of the following reactions?
- A. Water  
B. Benzene  
C. Carbon Tetrachloride  
D. Carbon disulphide
- Q.137**  $SN_1$  reactions have which of the following specie formed and consumed in the reaction?
- A. Transition state  
B. Intermediate  
C. Carbanion  
D. Carbene
- Q.138** Instantaneous rate of reaction is the rate at any
- A. At Equilibrium  
B. One instant  
C. Given Temperature  
D. Given Pressure
- Q.139** Redox Reaction are actually transfer of
- A. Electrons  
B. Charges  
C. Energy  
D. Hydrogen Ions
- Q.140** Which of the following acid solution is used for the seasoning of food?
- A. Butyric acid  
B. Phthalic acid  
C. Lactic acid  
D. Acetic acid
- Q.141** Cholesteryl Benzoate turns milky at
- A.  $123^\circ\text{C}$   
B.  $135^\circ\text{C}$   
C.  $145^\circ\text{C}$   
D.  $179^\circ\text{C}$
- Q.142** In the production of wrought iron Mg Si and P are removed in the form of
- A. Oxides  
B. Silicates  
C. Slag  
D. Carbonates
- Q.143** Which one of the following benzene molecules have?
- A. Two double bonds  
B. Delocalized pi-electron charge  
C. Three double bonds  
D. One sigma bond
- Q.144** Carboxylic acids form dimer due to \_\_\_\_\_?
- A. Small sizes  
B. Polarity of C–O bond  
C. H–bonding  
D. Dipole–Dipole interactions
- Q.145** Activator of phosphatase enzyme is \_\_\_\_\_.
- A.  $\text{Mn}^{2+}$   
B.  $\text{Mg}^{2+}$   
C.  $\text{Zn}^{2+}$   
D. None of these
- Q.146** a liquid crystalline state exist between two temperatures I-e melting temperature and \_\_\_\_\_ temperature
- A. Boiling  
B. Freezing  
C. Clearing  
D. All of these
- Q.147** Plasma 'the fourth state of matter was identified by
- A. Berzelius  
B. William Crooks  
C. Dalton  
D. Rutherford
- Q.148** Acetaldehyde undergoes polymerization with conc.  $\text{H}_2\text{SO}_4$  and form \_\_\_\_\_?
- A. Acetylides  
B. Paraldehyde  
C. Bakelite  
D. Meta Acetaldehyde
- Q.149** There are just only a few stable compounds, formed by noble gases like
- A.  $\text{XeF}_2$   
B.  $\text{XeOF}_2$   
C.  $\text{XeO}_3$   
D. All of these

- Q.150** Who attributed the deviation of real gases from ideal behavior?  
 A. Boyle's law  
 B. Charles's law  
 C. Avogadro's law  
 D. Van der Waals
- Q.151** An electron in an atom is completely described by its  
 A. 2 quantum numbers  
 B. Only one quantum number  
 C. Four quantum numbers  
 D. 3 quantum numbers
- Q.152** Enzymes are \_\_\_\_\_ in nature.  
 A. Proteins  
 B. Carbohydrates  
 C. Lipids  
 D. Nucleic acid
- Q.153** The properties of liquid crystals are intermediate b/w crystals and  
 A. Anisotropic liquids  
 B. Nematic liquids  
 C. Isotropic liquids  
 D. Liquids
- Q.154** Fractions of Crude petroleum can be obtained by using \_\_\_\_\_?  
 A. Destructive distillation  
 B. Fractional distillation  
 C. Vacuum distillation  
 D. Distillation
- Q.155** In proteins the H bonding is present between \_\_\_\_\_?  
 A. C-H  
 B. N-H  
 C. O-H  
 D. Cl-H
- Q.156** Which of the following centers are present in the carbonyl compounds?  
 A. Electrophilic  
 B. Nucleophilic  
 C. Electron deficient  
 D. All of these
- Q.157** Shifting the position of equilibrium can be used to Increase  
 A. Temperature  
 B. Pressure  
 C. Yield of reaction  
 D. All of these
- Q.158** Reduction of alkyl halides in the presence of Zn and mineral acid produces \_\_\_\_\_?  
 A. Alkenes  
 B. Alkanes  
 C. Alkynes  
 D. Alcohols
- Q.159** An aromatic compound that can be obtained from coal tar is  
 A. Benzene  
 B. Toluene  
 C. Phenol  
 D. Diphenylmethane
- Q.160** Polymerization of ethene produces which of the following polymer?  
 A. Polyvinyl  
 B. Polyethyl  
 C. Polyethylene  
 D. Polyethoxy
- Q.161** Which one of the following has positive value?  
 A. Heat lost by the system  
 B. Work done on the system  
 C. Work done by the system  
 D. Positive  $\Delta E$  when heat lost by the system
- Q.162** If the concentration of reactants in a chemical reaction is Unity the rate is called  
 A. Unit rate constant  
 B. Specific rate constant  
 C. Relative rate constant  
 D. Average rate constant
- Q.163** Which will need maximum energy to remove its one electron?  
 A.  $\text{Na} \rightarrow \text{Na}^+ + e^-$   
 B.  $\text{Ca} \rightarrow \text{Ca}^{++} + e^-$   
 C.  $\text{K} \rightarrow \text{K}^{++} + e^-$   
 D.  $\text{C}^{2+} \rightarrow \text{C}^{3+} + e^-$
- Q.164** Reaction of vinyl acetylene with HCl produces?  
 A. Polyvinyl polymer  
 B. Polyvinyl Acetylene  
 C. Neoprene  
 D. Chloroprene

- Q.165 Carboxylic acids are formed by the hydrolysis of \_\_\_\_\_?  
 A. Ester, Nitriles  
 B. Nitriles, amines  
 C. Alkenes, Alkynes  
 D. Esters, Alcohols
- Q.166 Which of the species has a permanent dipole moment?  
 A. SF<sub>4</sub>  
 B. SiF<sub>4</sub>  
 C. BF<sub>3</sub>  
 D. XeF<sub>4</sub>
- Q.167 The number of charges present on a cation depends on number of electrons \_\_\_\_\_ by the atom  
 A. Gain  
 B. Lost  
 C. Accept  
 D. Produced
- Q.168 In aldol condensation, nucleophile is \_\_\_\_\_?  
 A. Hydroxyl ion  
 B. Carbocation  
 C. Carbanion  
 D. Water
- Q.169 The oxidation number of Nickel in [Ni(CO)<sub>4</sub>] is  
 A. 2  
 B. 8  
 C. 6  
 D. 4
- Q.170 Which of the following is not a mixture of hydrocarbons?  
 A. Candle wax  
 B. Kerosine oil  
 C. Paraffin oil  
 D. Vegetable ghee
- Q.171 Which type of carboxylic acid is produced from the hydrolysis of nitriles?  
 A. Beta-hydroxy carboxylic acids  
 B. Acids having one carbon more than the starting material  
 C. Acids having one carbon less than the starting material  
 D. Alpha-hydroxy acids
- Q.172 Dipole forces has direct relation with the \_\_\_\_\_?  
 A. Chemical properties of a substance  
 B. Kinetic properties of substance  
 C. Thermodynamic properties of substance  
 D. Nature of substance
- Q.173 Critical temperature of ammonia is \_\_\_\_ °C  
 A. 31.14  
 B. 13.24  
 C. 132.44  
 D. 1.11
- Q.174 The alcohols which are resistant to oxidation reactions are  
 A. Primary alcohols  
 B. Secondary alcohol  
 C. Tertiary alcohol  
 D. All of above
- Q.175 A compound has an empirical (simple) formula, C<sub>2</sub>H<sub>2</sub>O. If the experimental molecular weight is found to be in the range 16–17, the molecular formula of this compound is: (Atomic wt.: C = 12, H = 1, O = 16.)  
 A. C<sub>3</sub>H<sub>6</sub>O<sub>3</sub>  
 B. C<sub>4</sub>H<sub>4</sub>O<sub>2</sub>  
 C. C<sub>3</sub>H<sub>6</sub>O<sub>4</sub>  
 D. C<sub>6</sub>H<sub>6</sub>O<sub>3</sub>
- Q.176 Quantum number values for 2p orbitals are  
 A. n = 2, l = 1  
 B. n = 1, l = 2  
 C. n = 1, l = 0  
 D. n = 2, l = 2
- Q.177 Fluorine has highest electronegativity value that is  
 A. 3.4  
 B. 4  
 C. 1.2  
 D. 2.6
- Q.178 S–S bond is present in which of the ion pairs  
 A. S<sub>2</sub>O<sub>7</sub><sup>2-</sup>, S<sub>2</sub>O<sub>3</sub><sup>2-</sup>  
 B. S<sub>4</sub>O<sub>6</sub><sup>2-</sup>, S<sub>2</sub>O<sub>7</sub><sup>2-</sup>  
 C. S<sub>2</sub>O<sub>7</sub><sup>2-</sup>, S<sub>2</sub>O<sub>8</sub><sup>2-</sup>  
 D. S<sub>4</sub>O<sub>6</sub><sup>2-</sup>, S<sub>2</sub>O<sub>3</sub><sup>2-</sup>

- Q.179 The nature of amorphous solid is  
A. Isotropic  
B. Anisotropic  
C. Mesotropic  
D. Neotropic

- Q.180 Enzymes speed up the reaction upto:  
A.  $10^{10}$   
B.  $20^{10}$   
C.  $10^{20}$   
D.  $15^{10}$

## ENGLISH

- Q.181 Choose the correct spelling of the word  
A. Something  
B. Somthing  
C. Sumthing  
D. Sumthin
- Q.182 Choose the correct sentence.  
A. Does your train leave before eight o'clock?  
B. Does your train leave before eight o clock?  
C. does your train leave before eight o'clock  
D. does your train leave before eight o'clock?
- Q.183 Did I say anything to make you angry?  
A. Declarative  
B. Imperative  
C. Interrogative  
D. Exclamatory
- Q.184 Thank you. You've been very \_\_\_\_\_ through this time.  
A. Ideal  
B. Cruel  
C. Kind  
D. Glad
- Q.185 Either my mother or my father \_\_\_\_\_ coming to the meeting.  
A. is  
B. are  
C. are being  
D. has
- Q.186 I borrowed \_\_\_\_\_ pencil from your pile of pencils and pens.  
A. a  
B. an  
C. the  
D. no article
- Q.187 Choose the correct sentence.  
A. He always loved sweets, chocolates, biscuits and cakes.  
B. He always loved, sweets, chocolates, biscuits and cakes.  
C. He always loved sweets, chocolates, biscuits and, cakes.  
D. He always loved sweets, chocolates biscuits and cakes.
- Q.188 unburdened  
A. Hindered  
B. Extort  
C. Free  
D. Encumbered
- Q.189 We still haven't come \_\_\_\_\_ with an interesting theme for the advertising campaign.  
A. On  
B. In  
C. Up  
D. Down
- Q.190 \_\_\_\_\_ people know the town better than old Jake here.  
A. Only few  
B. The few  
C. Only the few  
D. Few
- Q.191 It \_\_\_\_\_ (rain) since last night.  
A. Raining  
B. has been raining  
C. rains  
D. rained
- Q.192 I have already got a \_\_\_\_\_ at a hotel in Murree. We shall have no problems.  
A. Prescription  
B. Property  
C. Reserve  
D. Reservation

- Q.193 Glared  
 A. Frown or blaze  
 B. Shine or sparkle  
 C. Grin or extinguish  
 D. Frown or eliminate
- Q.194 Choose the correct type of tense. "We will visit the museum"  
 A. Present  
 B. Past  
 C. Future  
 D. None
- Q.195 "What are you doing here?" " I \_\_\_\_\_ TV."  
 A. watching  
 B. am watching  
 C. is watching  
 D. watches
- Q.196 Find the error?  
 A. They talked through the entire movie.  
 B. The plants in this garden does not require much water.  
 C. She always brings turkey sandwiches for lunch.  
 D. No mistakes
- Q.197 Either my father or my brothers \_\_\_\_\_ going to sell the car.  
 A. is  
 B. are  
 C. were  
 D. was
- Q.198 Mariam enjoys eating \_\_\_\_\_ cheese.  
 A. a  
 B. an  
 C. the  
 D. no article
- Q.199 The students were \_\_\_\_\_ the arrival of the chief guest.  
 A. The students were  
 B. Awaiting for  
 C. The arrival of  
 D. The chief guest.
- Q.200 The sun \_\_\_\_\_ (shine) brightly.  
 A. shine  
 B. shined  
 C. shone  
 D. shining

## LOGICAL REASONING

- Q.201 Statement:  
 I. The literacy rate in the district has been increasing for the last four years.  
 II. The district administration has conducted extensive training programme for the workers involved in the literacy drive.  
 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 Look at this series 14, 28, 20, 40, 32, 64. What number should come next?  
 A. 52  
 B. 56  
 C. 96  
 D. 128
- Q.203 CMM, EOO, GQQ, \_\_\_\_\_, KUU  
 A. GRR  
 B. GSS  
 C. ISS  
 D. ITT
- Q.204 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.205 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

**B. None of them follows**

C. Only I follow

D. Only II follows

**Q.206 How many such pairs of letters are there in the word 'HISTORICAL' which have as many letters between them in the word as they have between them in the English alphabet?**

A. Four

**B. Seven**

C. Five

D. Eight

**Q.207 Statement:**

**I. Police resorted to lathi-charge to disperse the unlawful gathering of large number of people.**

**II. The citizens' forum called a general strike in protest against the police atrocities.**

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.208 A book cannot exist without**

A. Education

B. Pictures

**C. Pages**

D. Qualification

**Q.209 STATEMENT:**

**I. There has been a decline in the prices of the personal computers.**

**II. School going kids are expressing interests in learning how the computer operates.**

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.210 Discernible and Palpable have \_\_\_\_\_ number of same letter**

A. 2

**B. 3**

C. 5

D. 4

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