

PHYSICS

1. In motion of satellites, necessary centripetal force is provided by:
 - A. Gravitational Force
 - B. Coulomb's Force
 - C. Magnetic Force
 - D. Nuclear Force

2. In ripple tank 40 waves pass through a certain point in one second. If the wavelength of the waves is 5cm, then find the speed of wave.
$$40 \quad v = f\lambda$$
$$= 40 \times 5 \times 10^{-2}$$
$$= 200$$
$$= 2$$
 - A. 2.7 m/s
 - B. 3 m/s
 - C. 200 m/s
 - D. 2 m/s

3. The product of frequency and time period is equal to:
 - A. 2
 - B. 3
 - C. 0
 - D. 1

4. Trough of a wave acts as:
 - A. Concave lens
 - B. Convex lens
 - C. Convex mirror
 - D. Plane mirror

5. In Doppler effect if listener moves towards a stationary source then:
 - A. Observed frequency is greater than original frequency
 - B. Observed frequency is less than original frequency
 - C. Observed frequency is equal to original frequency
 - D. Observed frequency is independent of original frequency

6. Refrigerator is an example of:
 - A. First law of thermodynamics
 - B. Second law of thermodynamics
 - C. Newton law of motion
 - D. Entropy

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7. In a certain process, 400J of heat energy is supplied to a system and at the same time 150J of work is done by the system. The increase in internal energy of system is _____.
- A. 150J
B. 300J
C. 250J
D. 500J
8. The rapid escape of air from a burst tyre is an example of:
- A. Isothermal
B. Adiabatic
C. Isobaric
D. Isochoric
9. The bicycle pump works on the basis of:
- A. 1st Law of thermodynamics
B. 2nd Law of thermodynamics
C. Law of conservation of energy
D. Law of entropy
10. Two positive point charges are placed 2m apart. The electric potential at mid-point due to these two charges will be _____ :
- A. Added to double
B. Reduced to half
C. Remains same (no effect)
D. Cancel each other effect
11. Which one of the following is the angle of projection of a projectile if its range is equal to its height?
- A. 48°
B. 60°
C. 90°
D. 76°
12. The product of force and time is equal to:
- A. Angular momentum
B. Force
C. Change in momentum
D. Velocity

$$F = \frac{\Delta p}{\Delta t} \quad F \Delta t = \Delta p$$

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13. The time rate of change of linear momentum of a body is equal to:
- Force
 - Momentum
 - Power
 - Acceleration
14. A 10 N force moves a body around a circular path of radius 50cm. What is work done in completing one revolution?
- 5 J
 - Zero
 - 31.42 J
 - 500 J
15. 3 kg stone falls from 20m high platform. Find its falling speed at 10m height.
- 196 ms⁻¹
 - 14 ms⁻¹
 - 10 ms⁻¹
 - 100 ms⁻¹
16. The area under force - displacement graph gives us:
- Displacement
 - Power
 - Work
 - Acceleration
17. Kilowatt-hour is unit of?
- Electric Energy
 - Power
 - Momentum
 - Torque
18. The food we eat in one day has about the same energy as:
- 0.33 liter of petrol
 - 1 liter of petrol
 - 0.5 liter of petrol
 - 2 liter of petrol
19. One complete circle is equal to:
- 2 radian
 - 3 radian
 - 5 radian
 - 6 radian

$$v = \sqrt{2g(h_2 - h_1)}$$

$$= \sqrt{2 \times 10 \times (20 - 10)}$$

$$= \sqrt{200} = \sqrt{2} \times \sqrt{100} = 1.41 \times 10$$

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26. Red light is used in photographic dark room because of:
- A. More frequency, less wavelength
 - B. Less frequency, less wavelength
 - C. Less frequency, more wavelength
 - D. More frequency, more wavelength
27. For gaining an atomic spectra, an evacuated glass tube is filled with:
- A. Neon
 - B. Hydrogen
 - C. Carbon dioxide
 - D. Sulphur dioxide
28. During production of x-rays the cathode and anode are enclosed inside an evacuated glass chamber and high DC voltage of the order of:
- A. 1000 V is maintained
 - B. 10,000 V is maintained
 - C. 25,000 V is maintained
 - D. 50,000 V is maintained
29. Half-life of iodine-131 is 8 days. If 20mg is present initially, how much iodine is left behind after 2 half-lives?
- A. 10 mg
 - B. 5 mg
 - C. 2.5 mg
 - D. 1.25 mg
30. 4.5×10^9 years is the half-life of:
- A. U^{234}
 - B. U^{235}
 - C. U^{238}
 - D. C^{14}
31. When a charge "Q" on a capacitor is doubled then energy stored "U" will:
- A. 2 U
 - B. 3 U
 - C. U/2
 - D. 4 U
- $\frac{1}{2} QV$

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32. By increasing area of the plates and decreasing distance between them, the capacitance of capacitor:

- A. Increases
- B. Decreases
- C. Remains unchanged
- D. Depending upon temperature

$$\frac{A\epsilon}{d} = \frac{2A\epsilon}{d/2}$$

33. If we double the separation between two charges then coulomb's force will become?

- A. Doubled
- B. Half
- C. 4-times
- D. $1/4^{\text{th}}$

$$\frac{k \frac{q_1 q_2}{r^2}}{r^2} = \frac{k \frac{q_1 q_2}{(2r)^2}}{(2r)^2} = \frac{1}{4}$$

34. The power of an electric bulb is 100W, it is connected to 110V power supply. The resistance of electric bulb will be?

- A. 11 ohm
- B. 121 ohm
- C. 20 ohm
- D. 200 ohm

$$R = \frac{(110)^2}{100} = \frac{12100}{100}$$

35. Terminal voltage " V_t " of the battery is greater than emf of the battery when:

- A. Battery is charging
- B. Battery is discharging
- C. Battery is connected with R
- D. Battery is connected with voltmeter

36. The temperature coefficient of semi-conductor is negative because:

- A. Resistance increases with increase of temperature
- B. Resistance decreases with increase of temperature
- C. Resistance decreases with decrease of temperature
- D. Resistance remains same with increase of temperature

37. If length of the wire becomes two times to its original value and area becomes one half to its original value then resistance of the wire becomes:

- A. Double
- B. Four times
- C. One half
- D. One fourth

$$R = \rho \frac{l}{A} = \rho \frac{2l}{A/2} = 4R$$

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38. The unit of resistivity is:
- A. ohm
 - B. ohm meter
 - C. ohm / meter
 - D. meter / ohm
39. 1 kilowatt hour =
- A. 1.6×10^{-19} J
 - B. 3.6×10^6 J
 - C. 9.1×10^{-31} J
 - D. 1.67×10^{-27} J
40. It is a null type resistance device for measuring potential differences:
- A. Galvanometer
 - B. Ohmmeter
 - C. Ammeter
 - D. Potentiometer

CHEMISTRY

41. Which statement is true about electron affinity?
- A. The value of electron affinity is always positive
 - B. The value of electron affinity is always negative
 - C. The value of first electron affinity is always positive
 - D. The value of first electron affinity is always negative
42. The bond which is based on attractive forces between oppositely charged ion is:
- A. Covalent bond
 - B. Dative bond
 - C. Ionic bond
 - D. Metallic bond
43. Which statement is incorrect regarding a chemical bond?
- A. Bond is formed by the overlapping of half-filled orbitals
 - B. Bond is formed by the attraction of positive and negative ions
 - C. Bond is formed by the overlapping of "s" orbital is strong
 - D. Bond formed by the large sized atoms is strong
44. The carbonates of alkali metals are soluble in water except:
- A. K_2CO_3
 - B. Li_2CO_3
 - C. Na_2CO_3
 - D. Rb_2CO_3

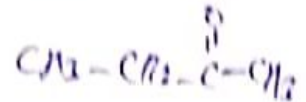
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45. The nitrides of alkaline earth metals hydrolyse with water to form:
- A. NH_3
 - B. H_2
 - C. N_2
 - D. NO
46. The flame colour of Ca in flame test is:
- A. Orange red
 - B. Golden yellow
 - C. Red
 - D. Pink
47. Which of the following is the most stable metal carbonate?
- A. BaCO_3
 - B. MgCO_3
 - C. CaCO_3
 - D. SrCO_3
48. The binding energy of transition metal increase upto group:
- A. IIB
 - B. IV B
 - C. IIIB
 - D. VI B
49. Isomerism due to shifting of proton from one atom to another in a same molecule is known as:
- A. Metamerism
 - B. Tautomerism
 - C. Position
 - D. Functional
50. Iso-Butyl alcohol has following carbon attached to hydroxy group:
- $\text{C}_1 - \text{C}^1 - \text{C}_2 - \text{OH}$
 $\quad \quad \quad |$
 $\quad \quad \quad \text{C}_3$
- A. Tertiary
 - B. Secondary
 - C. Quaternary
 - D. Primary
51. Oxidation of alcohol gives:
- A. Amines
 - B. Alkane
 - C. Aldehyde
 - D. Alkynes

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52. Butanone on oxidation with $K_2Cr_2O_7 / H_2SO_4$ forms :

- A. Acetic acid
- B. Acetic acid & Ethane
- C. Methane & Propanoic acid
- D. Propanoic acid & Methanoic acid



53. Hydrolysis of Nitriles produces:

- A. Carboxylic acid
- B. Aldehydes
- C. Ketones
- D. Esters

54. Acetic anhydride is a product of acetic acid, as a result of the following reaction:

- A. Dehydration
- B. Reduction
- C. Oxidation
- D. Esterification

55. Which of the following enzyme is raised in rickets?

- A. Lactic dehydrogenase
- B. LDH-I
- C. Phosphatase
- D. Alkaline phosphatase

56. For a gaseous reaction, the increase in pressure will shift the equilibrium in a direction:

- A. Decreased concentration
- B. Increased concentration
- C. Decreased volume
- D. Increased volume

57. Acidic buffer consist of:

- A. Strong acid and salt of it with a weak base
- B. Weak acid and salt of it with a strong base
- C. Strong acid and salt of it with a strong base
- D. Weak acid and salt of it with a weak base

58. The pH of human blood is maintained between:

- A. 7.35 to 7.45
- B. 7.55 to 7.65
- C. 7.00 to 7.25
- D. 7.85 to 7.95

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66. The breakdown of a substance with current is:
A. Thermolysis
B. Catalysis
C. Electrolysis
D. Photolysis
67. Which of the following is balanced redox equation?
A. $\text{Na} + \text{Fe}^{3+} \rightarrow \text{Na}^{1+} + \text{Fe}$
B. $\text{Zn} + \text{Ag}^{1+} \rightarrow \text{Zn}^{2+} + \text{Ag}$
C. $3\text{Na} + \text{Fe}^{3+} \rightarrow 3\text{Na}^{1+} + \text{Fe}$
D. $2\text{Zn} + \text{Ag}^{1+} \rightarrow 2\text{Zn}^{2+} + \text{Ag}$
68. Stronger is the oxidizing agent, greater is the:
A. Oxidation potential
B. Reduction potential
C. Redox potential
D. EMF of cell
69. Type of bonding in Sodium (Na) is:
A. Metallic
B. Ionic
C. Covalent
D. Co-ordinate Covalent
70. Which of the following Halogens molecules has maximum bond energy?
A. F-F
B. Cl-Cl
C. Br-Br
D. I-I
71. Half atmospheric pressure is:
A. 400 torr
B. 50622 Pa 1299
C. 101.3 Pa
D. 8.5 pounds
72. The values of S.T.P for 1 mole of any ideal gas is:
A. 273.16 K & 1 atm
B. 0°C & 1 mm Hg
C. 273.16°C & 1 atm
D. 0 K & 1 atm

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59. The buffer solution is not formed for:
- A. $\text{NH}_2\text{OH} + \text{NH}_4\text{Cl}$
 - B. $\text{CH}_3\text{COOH} + \text{CH}_3\text{COONa}$
 - C. $\text{C}_6\text{H}_5\text{COOH} + \text{C}_6\text{H}_5\text{COONa}$
 - D. $\text{HCl} + \text{NaCl}$
60. In the reaction
 $\text{H}_2 + \text{CO}_2 \leftrightarrow \text{H}_2\text{O} + \text{CO}$
the decrease in the concentration of CO_2 will shift equilibrium:
- A. Towards left
 - B. Towards right
 - C. Nothing happens to the equilibrium
 - D. Equilibrium will shift towards both the directions
61. At equilibrium the concentration of reactants and product become:
- A. Zero
 - B. Equal
 - C. Constant
 - D. Infinite
62. The effect of temperature on the rate of a reaction is given by:
- A. Henderson's equation
 - B. General gas equation
 - C. Arrhenius equation
 - D. Vander Waal's equation
63. In a reversible reaction, catalyst lowers the activation energy of the:
- A. Forward reaction
 - B. Reverse reaction
 - C. Forward as well as reverse reaction
 - D. Forward reaction but increases that of the reverse reaction
64. The rate of reaction:
- A. Increases as the reaction proceeds
 - B. Decreases as the reaction proceeds
 - C. Remains the same as the reaction proceeds
 - D. May decrease or increase as the reaction proceeds
65. 0.5 molar solution NaOH contains:
- A. 40g NaOH in one dm^3
 - B. 80g NaOH in one dm^3
 - C. 10g NaOH in one dm^3
 - D. 20g NaOH in one dm^3

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73. The expression $PV = nRT$ represents the:
- A. Dalton's law
 - B. Avogadro's law
 - C. General gas equation
 - D. Vander Waal's equation

74. Pressure remaining constant, at which temperature volume of gas will become twice to the volume at 0°C ?
- A. 546°C
 - B. 200°C
 - C. 546°K
 - D. 273°C

$$\frac{V_1}{T_1} = \frac{V_2}{T_2} \quad T_2 = \frac{V_2 T_1}{V_1} = 2T_1$$

75. A graph between volume and temperature gives a straight line which cuts the temperature axis at:
- A. 0°C
 - B. 273°C
 - C. 546°C
 - D. -273°C

76. What is not true for effusion of gases?
- A. Movement of particles through small opening
 - B. Movement of particles from high pressure to low pressure
 - C. Movement of particles due to escaping tendency one by one
 - D. Movement of particles due to collision among themselves

77. Upon which factor vapour pressure is independent :
- A. Temperature
 - B. Intermolecular forces
 - C. Density of liquid
 - D. Surface area of liquid

78. Solid water is expanded _____ times when it is compared with same volume of liquid water :

- A. 9
- B. 5
- C. 6
- D. 2

79. Molar heat of vaporization is the amount of heat required to convert one mole of:

- A. A liquid into its vapours at its boiling point
- B. Liquid into its vapours
- C. Solids into vapours
- D. Solid into liquid at its melting point

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86. Many elements have fractional atomic masses. This is because:
- Mass of atom is itself fractional
 - Atomic masses are average masses of isobars
 - Atomic masses are average masses of isotopes
 - Atomic masses are average masses of isotopes proportional to their abundance
87. Mass of 1 molecule of O_2 is:
- $6.02 \times 10^{23} \text{g} / 32$
 - $32 / 6.02 \times 10^{23} \text{g}$
 - 32 g
 - 0.32 g
88. The number of moles of CO_2 which contain 8.0 g of oxygen are:
- 1.0
 - 4.50
 - 0.50
 - 0.25
89. Identify the correct option with same empirical formula for both compounds:
- H_2O & H_2O_2
 - C_6H_{12} & C_6H_6
 - $H_2S_2O_3$ & H_2SO_4
 - $C_6H_{12}O_6$ & CH_3COOH CH_2O
90. 1 mole of any substance contains _____ particles:
- 6.02×10^{23}
 - 6.02×10^{24}
 - 6.02×10^{22}
 - 3.01×10^{23}
91. What are the Avogadro's number of particles in 0.25 moles of CO_2 ?
- 6.022×10^7
 - 1.505×10^{23}
 - 2.00×10^{23}
 - 1.505×10^{15}
92. The charge on one kg of electron is:
- $1.7588 \times 10^{11} \text{ C}$
 - $1.65 \times 10^{19} \text{ C}$
 - $9.1095 \times 10^{-31} \text{ C}$
 - $7.9 \times 10^{-25} \text{ C}$

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80. At transition temperature of crystalline solid, substance exists:
- A. In most stable geometrical form
 - B. Solid and liquid state
 - C. In dynamic equilibrium between two crystalline forms
 - D. In one solid geometrical form only
81. Some substances lack definite heats of fusion. These substances are:
- A. Isomorphs
 - B. Polymorphs
 - C. Amorphous solids
 - D. Crystalline solids
82. Thermal conductivity of metals is due to:
- A. Layered structure of metals
 - B. Freely moving electrons
 - C. Loosely held metal atoms
 - D. Vibrational movement of metals
83. Ice floats on the surface of water due to:
- A. Larger bond length
 - B. Cubic structure of ice
 - C. Weak intermolecular forces
 - D. Empty spaces in the structure of ice
84. When number of moles of reactants and products are equal in reversible reactions, which parameter would not affect at equilibrium?
- A. Temperature
 - B. Pressure
 - C. Volume
 - D. Catalyst
85. By which of the following factors equilibrium state is attained earlier?
- A. Temperature
 - B. Pressure
 - C. Concentration
 - D. Catalyst

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93. Which of the following fundamental particles have same mass/kg?

- A. Electron, neutrino
- B. Electron, proton
- C. Proton, neutrino
- D. Neutron, proton

94. The lightest positive rays obtained is from:

- A. Hydrogen gas
- B. Helium
- C. Neon
- D. Air

95. The amount of energy associated with quantum of radiation is directly proportional to:

- A. Photon
- B. Wavelength
- C. Frequency
- D. Velocity

96. X-rays are defined as :

- A. Electromagnetic radiations of high mass number
- B. Electromagnetic radiations of very high frequency
- C. Electromagnetic radiations of high wavelength
- D. Electromagnetic radiations of high energy

97. Which of the following orbital will be filled first than 4p?

- A. 4s
- B. 2p
- C. 3d
- D. 1s

s s p s p s d p s

98. Maximum _____ electrons can be placed in one orbital:

- A. 1
- B. 2
- C. 3
- D. 4

99. Mass of electron in a.m.u is:

- A. 1.0073
- B. 1.0087
- C. 5.485×10^{-4}
- D. 9.1×10^{-31}

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106. Identify the errors and choose the correct option:
The rehearsal session started and we have little times to spare for other activities
- A. The rehearsal session started and we have little time to spare for other activities.
 - B. The rehearsal session started, and we litle time to spare for other actevities.
 - C. The rehearsal session starts and we has little time to spare for other activities.
 - D. We are little time to spare for other activities, the rehearsals session starts.
107. Fill in the blank with appropriate option:
Lions, like any other carnivore, _____ on meat.
- A. Live
 - B. Lives
 - C. Does live
 - D. Living
108. Fill in the blank with appropriate option:
The cattle _____ away the crops.
- A. Has eaten
 - B. Is eating
 - C. Have eaten
 - D. Have been eating
109. The word 'LABYRINTH' means:
- A. Maze
 - B. Heap
 - C. Hive
 - D. Knack
110. Pick the correct option:
These are old those are new.
- A. These, are old, those are new.
 - B. These are old; those are new.
 - C. These are old: those are new.
 - D. These are old -- those are new.
111. Ahmed carried out his duty according _____ instructions.
- A. Too
 - B. To
 - C. Under
 - D. An

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112. Identify the errors and choose the correct option:
the first space traveller was dennis tito from united states
- A. The first space traveller was Dennis Tito from the United States
 - B. The First Space Traveller was Dennis Tito, from, the United states
 - C. The first space traveller was Dennis Tito-from united State
 - D. The first space travaler was Dennis Tito, from the United States

113. Select the right sentence.

- A. He opened the square red wooden box.
- B. He opened the red square wooden box.
- C. He opened the wooden red square box.
- D. He opened the red wooden square box.

114. Fill in the blank.

I can't walk _____.

- A. Farther
- B. Far
- C. Further
- D. Away

115. Can you tell this fact _____ his face?

- A. To
- B. On
- C. Upon
- D. At

116. Choose the correct option.

- A. The Three Musketeers was written by Dumas.
- B. The Three Musketeers were written by Dumas.
- C. The Three Musketeers has written by Dumas.
- D. The Three Musketeers have written by Dumas.

117. They have painted their house purple. The sentence is an example of:

- A. Monotransitive
- B. Ditransitive
- C. Complex transitive
- D. Reflexive transitive

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118. Select correct option:

He was killed _____ robbers _____ a hatchet.

- A. From, with
- B. By, at
- C. Through, for
- D. By, with

119. Choose the correct option.

- A. "Well no, perhaps not sir"
- B. "Well, no, perhaps not sir".
- C. "Well, no perhaps not sir"
- D. "Well no perhaps, not sir"

120. Find out Antonym of "Mumbled".

- A. Unprovoked
- B. Quiver
- C. Loud
- D. Rarely

BIOLOGY

121. Negative feedback mechanism is the characteristic of which class?

- A. Class Fish
- B. Class Amphibia
- C. Class Reptilia
- D. Class Mammalia

122. The function of papillary muscles is to:

- A. Move blood from semilunar valve into pulmonary vein
- B. Prevent the backward flow of blood from the ventricle
- C. Push the blood from right atrium to left atrium
- D. Push the blood from left atrium to aorta

123. Choose the correct pathway for the flow of blood:

- A. Arterioles ---- metarterioles — thoroughfare channel ---- capillaries
- B. Arterioles — thoroughfare channel ---- metarterioles ---- capillaries
- C. Thoroughfare channel ---- arterioles ---- capillaries ---- metarterioles
- D. Metarterioles ---- arterioles ---- thoroughfare channels ---- capillaries

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124. Intrinsic factor is secreted by:
- A. Pancreas
 - B. Liver
 - C. Stomach
 - D. Duodenum
125. Gaseous exchange in plants takes place through the:
- A. Stomata
 - B. Mesophyll
 - C. Endoderm
 - D. Xylem
126. Translocation of organic solutes in plants takes place through:
- A. Companion cell
 - B. Fibres
 - C. Sieve tubes
 - D. Vessels
127. The only vein in the human body carrying oxygenated blood is:
- A. Femoral
 - B. Pulmonary
 - C. Renal
 - D. Iliac
128. The cells which play very important role in developing immunity are:
- A. Monocytes
 - B. Neutrophils
 - C. Lymphocytes
 - D. Thrombocytes
129. Which of the following blood vessels have the highest pressure of blood?
- A. Aorta
 - B. Pulmonary arteries
 - C. Pulmonary veins
 - D. Vena Cava
130. Autoimmune diseases act at the principle of:
- A. Self against antigens
 - B. Antigen against self
 - C. Self against self
 - D. Antigen self-destroyed

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152. NAD is an example of _____:
- A. Mononucleotide
 - B. Dinucleotide
 - C. Tri nucleotide
 - D. Tetra nucleotide
153. What would be the number of nucleotides for a protein molecule of about 142 amino acids?
- A. 430
 - B. 142
 - C. 426
 - D. 460
154. The basic structural framework of all types of membranes are:
- A. Glycolipids
 - B. Glycoproteins
 - C. Lipoproteins
 - D. Nucleoproteins
155. Non Protein but inorganic detachable co-factor is called _____:
- A. Activator
 - B. Prosthetic group
 - C. Co-enzyme
 - D. Apo-enzyme
156. When inhibitor binds to enzyme other than active site and alters its structure, then it is called:
- A. Competitive inhibitor
 - B. Non - Competitive inhibitor
 - C. Reversible inhibitor
 - D. Irreversible inhibitor
157. Cyanides are potent poisons of living organism and can kill by inhibiting _____ essential for cellular respiration:
- A. Cytochrome oxidases
 - B. Dehydrogenases
 - C. Hydrolases
 - D. Nucleases

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158. During feedback inhibition, which of the following structural part of enzyme is involved?

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

159. Which of the following enzymes does NOT need a co-factor?

- A. Hexokinase
- B. Pepsin
- C. Alcohol Dehydrogenase
- D. Carbonic anhydrase

160. If another molecule, having a shape very similar to the enzyme's substrate, binds to its active site, it would then _____ the enzyme's function:

- A. Fasten
- B. Inhibit
- C. Reverse
- D. Decrease

161. Myofibrils within the muscle fibres contain thick and thin filaments made up of _____ and _____ respectively:

- A. Myosin and Actin
- B. Globulin and Albumin
- C. Troponin and Tropomyosin
- D. Fibrin and Fibrinogen

162. Vertebrae of the neck are called:

- A. Coccygeal vertebrae
- B. Cervical vertebrae
- C. Sacral vertebrae
- D. Lumbar vertebrae

163. Which vertebrae together are called pelvic vertebrae?

- A. Coccygeal and lumber
- B. Sacral and lumber
- C. Sacral and coccygeal
- D. Sacral and thoracic

164. The correct option about spinal nerves is:

- A. 33 pairs
- B. Mostly mixed nerves
- C. Dorsal root contains sensory neurons
- D. Ventral root contains motor neurons

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178. Within the chromosomes, each chromatid contains _____ DNA molecule:
- A. One
 - B. Two
 - C. Three
 - D. Half
179. Modification in the organization of the basic pentadactyl limb structure found in vertebrates provides good evidence for the principle of:
- A. Adaptive radiation
 - B. Convergent evolution
 - C. Genetic drift
 - D. Inheritance of acquired characters
180. Which one of the following is a genetic disorder in which abnormally thick mucus is produced in the lungs and other parts of the body?
- A. Lung cancer
 - B. Chronic bronchitis
 - C. Cystic fibrosis
 - D. Emphysema
181. Oxygen released into the atmosphere comes from:
- A. CO_2
 - B. H_2O
 - C. $\text{C}_6\text{H}_{12}\text{O}_6$
 - D. CO_2 and H_2O
182. End product of glycolysis in yeast is:
- A. Ethanol and Carbon dioxide
 - B. Lactate
 - C. Pyruvate
 - D. Acetyl Co. A
183. First infectious disease against which effective method of prevention developed was a _____:
- A. Bacterial disease
 - B. Viral disease
 - C. Protozoan disease
 - D. Viroid disease

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184. _____ infection is caused by a viroid :

- A. Hepatitis A
- B. Hepatitis D
- C. Mad Cow disease
- D. Mysterious brain infection

185. Numerous opportunistic diseases might attack a person suffering from which of the following diseases?

- A. Measles
- B. Influenza
- C. Hepatitis A
- D. AIDS

186. A combination of alpha interferon and ribavirin is used for the treatment of hepatitis:

- A. B
- B. A
- C. D
- D. C

187. Cysts are not resistant to _____ but spores are :

- A. Light
- B. Desiccation
- C. pH
- D. Heat

188. In which phase of bacterial growth, they divide at exponential rate?

- A. Lag phase
- B. Log phase
- C. Stationary phase
- D. Decline phase

189. Select a method which causes the oxidation of chemical constituent of a bacterial cell:

- A. Steam
- B. Dry heat
- C. Filtration
- D. Radiation

190. How does chemosynthesis differ from photosynthesis?

- A. Source of energy
- B. Production of organic compounds
- C. Reduction of CO_2
- D. Carried out by bacteria

191. Which one of locomotion?

- A. Amoeba
- B. Paramecium
- C. Forams
- D. Radiolana

192. Aspergilosis _____:

- A. Male
- B. Female
- C. AIDS pathogen
- D. Athletes

193. Select a sessile organism:

- A. Trichonympha
- B. Trypanosoma
- C. Choanoflagellate
- D. Euglena

194. Many _____ structures can be found in:

- A. Protozoa
- B. Porifera
- C. Lichens
- D. Fish

195. Chlorophyta resemble plants in:

- A. Chlorophyll
- B. Starch as reserve food
- C. Cellulose cell wall
- D. Multicellularity

196. Asexual spores are:

- A. Conidia
- B. Zygospores
- C. Ascospores
- D. Basidiospores

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191. Which one is different with respect to its modes of locomotion?
- A. Amoeba
 - B. Paramecium
 - C. Forams
 - D. Radiolarians
192. Aspergilosis is a fungal infection and occurs only in _____:
- A. Male
 - B. Female
 - C. AIDS patient
 - D. Athletes
193. Select a sessile zooflagellate:
- A. Trichonympha
 - B. Trypanosoma
 - C. Choanoflagellate
 - D. Euglena
194. Many _____ expel large amount of water by special structures called contractile vacuoles:
- A. Protozoa
 - B. Porifera
 - C. Echinoderm
 - D. Fish
195. Chlorophyta are considered to be closest to plants but do not resemble plants in having:
- A. Chlorophyll a and b
 - B. Starch as stored food
 - C. Cellulose cell wall
 - D. Multicellular sex organs
196. Asexual spores of fungi are called :
- A. Conidiospores
 - B. Zygosporangia
 - C. Ascospores
 - D. Basidiospores

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197. Which characteristic led to the evolution of seed?
- A. Heterogamous condition
 - B. Development of heterospory
 - C. Embryo formation
 - D. Protection of reproductive cells
198. The term which is not related to the process of evolution of leaf :
- A. Overtopping
 - B. Planation
 - C. Heterospory
 - D. Fusion / webbing
199. The most successful land adapting plants are :
- A. Mosses
 - B. Ferns
 - C. Gymnosperms
 - D. Angiosperms
200. Excretory system consisting of protonephridial tubes are present in phylum:
- A. Porifera
 - B. Annelida
 - C. Platyhelminthes
 - D. Cnidaria

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145. Fibers of extracellular matrix are attached to _____ in plasma membrane:
- A. Phospholipids
 - B. Carbohydrates
 - C. Glycolipids
 - D. Proteins
146. _____ organelles involve in the synthesis of plant cell wall:
- A. Endoplasmic reticulum
 - B. Golgi complex
 - C. Lysosomes
 - D. Peroxisomes
147. Select the pair of organs which contains a large number of mitochondria:
- A. Stomach & Liver
 - B. Muscle & Stomach
 - C. Heart & Liver
 - D. Liver & Muscle
148. Which of the following cells does not have nucleus?
- A. Muscle cell
 - B. Nerve cell
 - C. White Blood cell
 - D. Red Blood cell
149. Most abundant organic compounds in mammalian cell are:
- A. Water
 - B. Lipids
 - C. Carbohydrates
 - D. Proteins
150. Second most abundant bio element in human body is:
- A. Oxygen
 - B. Carbon
 - C. Hydrogen
 - D. Nitrogen
151. Lecithin is formed by combining phosphatidic acid with _____:
- A. Serine
 - B. Choline
 - C. Inositol
 - D. Ethanolamine

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138. Which organ is called as the body's thermostat?

- A. Pituitary gland
- B. Kidneys
- C. Hypothalamus
- D. Adrenal gland

139. The uptake of sodium in the ascending limb of loop of Henle is controlled by:

- A. Aldosterone
- B. ADH
- C. Glucocorticoid
- D. Thyroxin

140. The multinucleated mass of the bone forming cells is called:

- A. Osteoclasts
- B. Osteoblasts
- C. Osteogenics
- D. Osteocytes

141. Chief material present in the cell walls of plants, fungal and prokaryotic cells are:

- A. Proteins
- B. Lipids
- C. Polysaccharides
- D. Phospholipids

142. Which type of leucoplasts store lipids?

- A. Amyloplast
- B. Elaioplast
- C. Proteinoplast
- D. Etioplast

143. Which type of movement through cell membrane is not energy consuming process?

- A. Endocytosis
- B. Exocytosis
- C. Active transport
- D. Osmosis

144. Cholesterol molecules in plasma membrane are present in

- _____:
- A. Outer membrane of phospholipid
 - B. Inner membrane of phospholipid
 - C. Both layers of phospholipid
 - D. Between bilayers of phospholipid

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