RAVI MATHS TUITION CENTER , WHATSAPP - 8056206308

MCQ

10th Standard

Science

2149 x 1 = 2149

1) Inertia of a body depends on

(a) weight of the object (b) acceleration due to gravity of the planet

(c) mass of the object (d) Both a & b

2) Impulse is equals to

(a) rate of change of momentum (b) rate of force and time

(c) change of momentum (d) rate of change of mass

3) Newton's III law is applicable

(a) for a body is at rest (b) for a body in motion (c) both a & b

(d) only for bodies with equal masses

4) Plotting a graph for momentum on the Y-axis and time on X-axis. slope of momentum- time graph gives

(a) Impulsive force (b) Acceleration (c) Force (d) Rate of force

5) In which of the following sport the turning of effect of force used

(a) swimming (b) tennis (c) cycling (d) hockey

6) The unit of 'g' is m s^{-2}. It can be also expressed as

(a) cms^{-1} (b) Nkg^{-1} (c) Nm^2kg^{-1} (d) cm^2s^{-2}

7) One kilogram force equals to

(a) 9.8 dyne (b) 9.8×10^4 N (c) 98×10^4 dyne (d) 980 dyne

8) The mass of a body is measured on planet Earth as M kg. When it is taken to a planet of radius half that of the Earth then its value will be____kg

(a) 4 M (b) 2 M (c) M/4 (d) M

9) If the Earth shrinks to 50% of its real radius its mass remaining the same, the weight of a body on the Earth will

(a) decrease by 50% (b) increase by 50% (c) decrease by 25%

(d) increase by 300%

10) To project the rockets which of the following principle(s) is /(are) required?

(a) Newton's third law of motion (b) Newton's law of gravitation

(c) law of conservation of linear momentum (d) both a and c

11) The refractive index of four substances A, B, C and D are 1.31, 1.43, 1.33, 2.4 respectively. The speed of light is maximum in

(a) A (b) B (c) C (d) D

12) Where should an object be placed so that a real and inverted image of same size is obtained by a convex lens

(a) f (b) 2f (c) infinity (d) between f and 2f

13) A small bulb is placed at the principal focus of a convex lens. When the bulb is switched on, the lens will produce

(a) a convergent beam of light (b) a divergent beam of light

(c) a parallel beam of light (d) a coloured beam of light

14) Magnification of a convex lens is

(a) Positive (b) negative (c) either positive or negative (d) zero

15) A convex lens forms a real, diminished point sized image at focus. Then the position of the object is at

(a) focus (b) infinity (c) at 2f (d) between f and 2f

16) Power of a lens is –4D, then its focal length is

(a) 4m (b) –40m (c) –0.25 m (d) –2.5 m

17) In a myopic eye, the image of the object is formed

(a) behind the retina (b) on the retina (c) in front of the retina

(d) on the blind spot

18) The eye defect 'presbyopia' can be corrected by

(a) convex lens (b) concave lens (c) convex mirror (d) Bi focal lenses

19) Which of the following lens would you prefer to use while reading small letters found in a dictionary?

(a) A convex lens of focal length 5 cm (b) A concave lens of focal length 5 cm

(c) A convex lens of focal length 10 cm (d) A concave lens of focal length 10 cm

20) If V_B, V_G, V_R be the velocity of blue, green and red light respectively in a glass prism, then which of the following statement gives the correct relation?

(a) $V_B = V_G = V_R$ (b) $V_B > V_G > V_R$ (c) $V_B < V_G < V_R$ (d) $V_B < V_G > V_R$

21) The value of universal gas constant

(a) 3.81 $Jmol^{-1} K^{-1}$ (b) 8.03 $Jmol^{-1} K^{-1}$ (c) 1.38 $Jmol^{-1} K^{-1}$ (d) 8.31 $Jmol^{-1} K^{-1}$

22) If a substance is heated or cooled, the change in mass of that substance is

(a) positive (b) negative (c) zero (d) none of the above

23) If a substance is heated or cooled, the linear expansion occurs along the axis of

(a) X or –X (b) Y or –Y (c) both (a) and (b) (d) (a) or (b)

24) Temperature is the average _____ of the molecules of a substance

(a) difference in K.E and P.E (b) sum of P.E and K.E (c) difference in T.E and P.E

(d) difference in K.E and T.E

25) In the Given diagram, the possible direction of heat energy transformation is

(a) A←B, A←C, B←C (b) A→B, A→C, B→C (c) A→B, A←C, B→C

(d) A←B, A→C, B←C

26) Which of the following is correct?

(a) Rate of change of charge is electrical power

(b) Rate of change of charge is current. (c) Rate of change of energy is current.

(d) Rate of change of current is charge.

27) SI unit of resistance is

(a) mho (b) joule (c) ohm (d) ohm meter

28) In a simple circuit, why does the bulb glow when you close the switch?

(a) The switch produces electricity (b) Closing the switch completes the circuit.

(c) Closing the switch breaks the circuit. (d) The bulb is getting charged.

29) Kilowatt hour is the unit of

(a) resistivity (b) conductivity (c) electrical energy (d) electrical power

30) When a sound wave travels through air, the air particles

(a) vibrate along the direction of the wave motion

(b) vibrate but not in any fixed direction

(c) vibrate perpendicular to the direction of the wave motion (d) do not vibrate

31) Velocity of sound in a gaseous medium is 330 ms^{-1}. If the pressure is increased by 4 times without causing a change in the temperature, the velocity of sound in the gas is

(a) 330 ms^{-1} (b) 660 ms^{-1} (c) 165 ms^{-1} (d) 990 ms^{-1}

32) The frequency, which is audible to the human ear is

(a) 50 kHz (b) 20 kHz (c) 15000 kHz (d) 10000 kHz

33) The velocity of sound in air at a particular temperature is 330 ms^{-1}. What will be its value when temperature is doubled and the pressure is halved?

(a) 330 ms^{-1} (b) 165 ms^{-1} (c) 330 x $\sqrt{2}$ ms^{-1} (d) 320/$\sqrt{2}$ ms^{-1}

34) If a sound wave travels with a frequency of 1.25 x 10^4 Hz 344 ms^{-1}, the wavelength will be

(a) 27.52 m (b) 275.2 m (c) 0.02752 m (d) 2.752 m

35) The sound waves are reflected from an obstacle into the same medium from which they were incident. Which of the following changes?

(a) speed (b) frequency (c) wavelength (d) none of these

36) Velocity of sound in the atmosphere of a planet is 500 ms^{-1}. The minimum distance between the sources of sound and the obstacle to hear the echo, should be

(a) 17 m (b) 20 m (c) 25 m (d) 50 m

37) Man-made radioactivity is also known as _____.

(a) Induced radioactivity (b) Spontaneous radioactivity (c) Artificial radioactivity

(d) a & c

38) Unit of radioactivity is _____

(a) roentgen (b) curie (c) becquerel (d) all the above

39) Artificial radioactivity was discovered by_____

(a) Bequerel (b) Irene Curie (c) Roentgen (d) Neils Bohr

40) In which of the following, no change in mass number of the daughter nuclei takes place

(i) α decay,

(ii)β decay,

(iii) γ decay,
(iv) neutron decay

(a) (i) is correct (b) (ii) and (iii) are correct (c) (i) & (iv) are correct
(d) (ii) & (iv) are correct

41) _____ isotope is used for the treatment of cancer.

(a) Radio Iodine (b) Radio Cobalt (c) Radio Carbon (d) Radio Nickel

42) Gamma radiations are dangerous because

(a) it affects eyes & bones (b) it affects tissues (c) it produces genetic disorder
(d) it produces enormous amount of heat

43) _____ aprons are used to protect us from gamma radiations

(a) Lead oxide (b) Iron (c) Lead (d) Aluminium

44) Which of the following statements is/are correct?
i. α particles are photons
ii. Penetrating power of γ radiation is very low
iii. Ionization power is maximum for α rays
iv. Penetrating power of γ radiation is very high

(a) (i) & (ii) are correct (b) (ii) & (iii) are correct (c) (iv) only correct
(d) (iii) & (iv) are correct

45) Proton - Proton chain reaction is an example of_____

(a) Nuclear fission (b) α - decay (c) Nuclear fusion (d) β - decay

46) In the nuclear reaction ${}_6X^{12} \xrightarrow{\alpha\ decay} {}_zY^A$ the value of A & Z.

(a) 8, 6 (b) 8, 4 (c) 4, 8 (d) cannot be determined with the given data

47) Kamini reactor is located at _____

(a) Kalpakkam (b) Koodankulam (c) Mumbai (d) Rajasthan

48) Which of the following is/are correct?
i. Chain reaction takes place in a nuclear reactor and an atomic bomb.
ii. The chain reaction in a nuclear reactor is controlled
iii. The chain reaction in a nuclear reactor is not controlled
iv. No chain reaction takes place in an atom bomb

(a) (i) only correct (b) (i) & (ii) are correct (c) (iv) only correct
(d) (iii) & (iv) are correct

49) Which of the following has the smallest mass?

(a) 6.023×10^{23} atoms of He (b) 1 atom of He (c) 2 g of He
(d) 1 mole atoms of He

50) Which of the following is a triatomic molecule?

(a) Glucose (b) Helium (c) Carbon dioxide (d) Hydrogen

51) The volume occupied by 4.4 g of CO_2 at S.T.P

(a) 22.4 litre (b) 2.24 litre (c) 0.24 litre (d) 0.1 litre

52) Mass of 1 mole of Nitrogen atom is

(a) 28 amu (b) 14 g (c) 28 g (d) 14 m

53) Which of the following represents 1 amu?

(a) Mass of a C – 12 atom (b) Mass of a hydrogen atom

(c) $1/12^{th}$ of the mass of a C – 12 atom (d) Mass of O – 16 atom

54) Which of the following statement is incorrect?

(a) 12 gram of C – 12 contains Avogadro's number of atoms.

(b) One mole of oxygen gas contains Avogadro's number of molecules

(c) One mole of hydrogen gas contains Avogadro's number of atoms

(d) One mole of electrons stands for 6.023 × 1023 electrons.

55) The volume occupied by 1 mole of a diatomic gas at S.T.P is

(a) 11.2 litre (b) 5.6 litre (c) 22.4 litre (d) 44.8 litre

56) In the nucleus of $_{20}Ca^{40}$, there are

(a) 20 protons and 40 neutrons (b) 20 protons and 20 neutrons

(c) 20 protons and 40 electrons (d) 40 protons and 20 electrons

57) The gram molecular mass of oxygen molecule is

(a) 16 g (b) 18 g (c) 32 g (d) 17 g

58) 1 mole of any substance contains _____ molecules

(a) 6.023×10^{23} (b) 6.023×10^{-23} (c) 3.0115×10^{23} (d) 12.046×10^{23}

59) The number of periods and groups in the periodic table are_____.

(a) 6,16 (b) 7,17 (c) 8,18 (d) 7,18

60) The basis of modern periodic law is_____

(a) atomic number (b) atomic mass (c) isotopic mass (d) number of neutrons

61) _____ group contains the member of halogen family.

(a) 17^{th} (b) 15^{th} (c) 18^{th} (d) 16^{th}

62) _____ is a relative periodic property

(a) atomic radii (b) ionic radii (c) electron affinity (d) electronegativity

63) Chemical formula of rust is _____.

(a) $FeO.xH_2O$ (b) $FeO_4.xH_2O$ (c) $Fe_2O_3.xH_2O$ (d) FeO

64) In the alumino thermic process the role of Al is _____.

(a) oxidizing agent (b) reducing agent (c) hydrogenating agent

(d) sulphurising agent

65) The process of coating the surface of metal with a thin layer of zinc is called_____.

(a) painting (b) thinning (c) galvanization (d) electroplating

66) Which of the following have inert gases 2 electrons in the outermost shell

(a) He (b) Ne (c) Ar (d) Kr

67) Neon shows zero electron affinity due to _____.

(a) stable arrangement of neutrons (b) stable configuration of electrons

(c) reduced size (d) increased density

68) _____ is an important metal to form amalgam

(a) Ag (b) Hg (c) Mg (d) Al

69) A solution is a _____ mixture.

(a) homogeneous (b) heterogeneous (c) homogeneous and heterogeneous

(d) non homogeneous

70) The number of components in a binary solution is _____

(a) 2 (b) 3 (c) 4 (d) 5

71) Which of the following is the universal solvent?

(a) Acetone (b) Benzene (c) Water (d) Alcohol

72) A solution in which no more solute can be dissolved in a definite amount of solvent at a given temperature is called _____

(a) Saturated solution (b) Un saturated solution (c) Super saturated solution

(d) Dilute solution

73) Identify the non aqueous solution.

(a) sodium chloride in water (b) glucose in water (c) copper sulphate in water

(d) sulphur in carbon-di-sulphide

74) When pressure is increased at constant temperature the solubility of gases in liquid

(a) No change (b) increases (c) decreases (d) no reaction

75) Solubility of NaCl in 100 ml water is 36 g. If 25 g of salt is dissolved in 100 ml of water how much more salt is required for saturation _____

(a) 12g (b) 11g (c) 16g (d) 20g

76) A 25% alcohol solution means

(a) 25 ml alcohol in 100 ml of water (b) 25 ml alcohol in 25 ml of water

(c) 25 ml alcohol in 75 ml of water (d) 75 ml alcohol in 25 ml of water

77) Deliquescence is due to _____

(a) Strong affinity to water (b) Less affinity to water (c) Strong hatred to water

(d) Inertness to water

78) Which of the following is hygroscopic in nature?

(a) ferric chloride (b) copper sulphate penta hydrate (c) silica gel

(d) none of the above

79) $H_{2(g)} + Cl_{29(g)} \rightarrow 2HCl_{(g)}$ is a

(a) Decomposition Reaction (b) Combination Reaction

(c) Single Displacement Reaction (d) Double Displacement Reaction

80) Photolysis is a decomposition reaction caused by _____

(a) heat (b) electricity (c) light (d) mechanical energy

81) The reaction between carbon and oxygen is represented by $C_{(s)} + O_{2(g)} \rightarrow CO_{2(g)}$ + Heat. In which of the type(s), the above reaction can be classified?
(i) Combination Reaction
(ii) Combustion Reaction
(iii) Decomposition Reaction
(iv) Irreversible Reaction

(a) i and ii (b) i and iv (c) i, ii and iii (d) i, ii and iv

82) The chemical equation $Na_2SO_{4(aq)} + BaCl_{2(aq)} \rightarrow BaSO_{4(s)}\downarrow + 2NaCl_{(aq)}$ represents which of the following types of reaction?

(a) Neutralisation (b) Combustion (c) Precipitation (d) Single displacement

83) Which of the following statements are correct about a chemical equilibrium?
(i) It is dynamic in nature
(ii) The rate of the forward and backward reactions are equal at equilibrium
(iii) Irreversible reactions do not attain chemical equilibrium
(iv) The concentration of reactants and products may be different

(a) i, ii and iii (b) i, ii and iv (c) ii, iii and iv (d) i, iii and iv

84) A single displacement reaction is represented by $X_{(s)} + 2HCl_{(aq)} \rightarrow XC_{l2(aq)} + H_{2(g)}$. Which of the following(s) could be X. (i) Zn (ii) Ag (iii) Cu (iv) Mg. Choose the best pair.

(a) i and ii (b) ii and iii (c) iii and iv (d) i and iv

85) Which of the following is not an"element + element → compound" type reaction?

(a) $C_{(s)} + O_{2(g)} \rightarrow CO_{2(g)}$ (b) $2K_{(s)} + Br_{2(l)} \rightarrow 2KBr_{(s)}$ (c) $2CO_{(g)} + O_{2(g)} \rightarrow 2CO_{2(g)}$
(d) $4Fe_{(s)} + 3O_{2(g)} \rightarrow 2Fe_2O_{3(s)}$

86) Which of the following represents a precipitation reaction?

(a) $A_{(s)} + B_{(s)} \rightarrow C_{(s)} + D_{(s)}$ (b) $A_{(s)} + B_{(aq)} \rightarrow C_{(aq)} + D_{(l)}$ (c) $A_{(aq)} + B_{(aq)} \rightarrow C_{(s)} + D_{(aq)}$
(d) $A_{(aq)} + B_{(s)} \rightarrow C_{(aq)} + D_{(l)}$

87) The pH of a solution is 3. Its [OH–] concentration is

(a) 1×10^{-3} M (b) 3M (c) 1×10^{-11} M (d) 11 M

88) Powdered $CaCO_3$ reacts more rapidly than flaky $CaCO_3$ because of _____.

(a) large surface area (b) high pressure (c) high concentration
(d) high temperature

89) The molecular formula of an open chain organic compound is C_3H_6. The class of the compound is

(a) alkane (b) alkene (c) alkyne (d) alcohol

90) The IUPAC name of an organic compound is 3-Methyl butan-1-ol. What type compound it is?

(a) Aldehyde (b) Carboxylic acid (c) Ketone (d) Alcohol

91) The secondary suffix used in IUPAC nomenclature of an aldehyde is ____

(a) - ol (b) – oic acid (c) – al (d) - one

92) Which of the following pairs can be the successive members of a homologous series?

(a) C_3H_8 and C_4H_{10} (b) C_2H_2 and C_2H_4 (c) CH_4 and C_3H_6
(d) C_2H_5OH and C_4H_8OH

93) $C_2H_5OH + 3O_2 \rightarrow 2CO_2 + 3H_2O$ is a

(a) Reduction of ethanol (b) Combustion of ethanol (c) Oxidation of ethanoic acid
(d) Oxidation of ethanal

94) Rectified spirit is an aqueous solution which contains about _____ of ethanol

(a) 95.5 % (b) 75.5 % (c) 55.5 % (d) 45.5 %

95) Which of the following are used as anaesthetics?

(a) Carboxylic acids (b) Ethers (c) Esters (d) Aldehydes

96) TFM in soaps represents _____ content in soap

(a) mineral (b) vitamin (c) fatty acid (d) carbohydrate

97) Which of the following statements is wrong about detergents?

(a) It is a sodium salt of long chain fatty acids

(b) It is sodium salts of sulphonic acids

(c) The ionic part in a detergent is $-SO_3^-Na^+$ (d) It is effective even in hard water.

98) Casparian strips are present in the _____ of the root.

(a) cortex (b) pith (c) pericycle (d) endodermis

99) The endarch condition is the characteristic feature of

(a) root (b) stem (c) leaves (d) flower

100) The xylem and phloem arranged side by side on same radius is called _____

(a) radial (b) amphivasal (c) conjoint (d) None of these

101) Which is formed during anaerobic respiration

(a) Carbohydrate (b) Ethyl alcohol (c) Acetyl CoA (d) Pyruvate

102) Kreb's cycle takes place in

(a) chloroplast (b) mitochondrial matrix (c) stomata

(d) inner mitochondrial membrane

103) Oxygen is produced at what point during photosynthesis ?

(a) when ATP is converted to ADP (b) when CO_2 is fixed (c) when H_2O is splitted

(d) All of these

104) In leech locomotion is performed by

(a) Anterior sucker (b) Parapodia (c) Setae

(d) Contraction and relaxation of muscles

105) The segments of leech are known as

(a) Metameres (somites) (b) Proglottids (c) Strobila (d) All the above

106) Pharyngeal ganglion in leech is a part of

(a) Excretory system (b) Nervous system (c) Reproductive system

(d) Respiratory system

107) The brain of leech lies above the

(a) Mouth (b) Buccal Cavity (c) Pharynx (d) Crop

108) The body of leech has

(a) 23 segments (b) 33 segments (c) 38 segments (d) 30 segments

109) Mammals are _____ animals.

(a) Cold blooded (b) Warm blooded (c) Poikilothermic (d) All the above

110) The animals which give birth to young ones are

(a) Oviparous (b) Viviparous (c) Ovoviviparous (d) All the above

111) Active transport involves

(a) movement of molecules from lower to higher concentration

(b) expenditure of energy (c) it is an uphill task (d) all of the above

112) Water which is absorbed by roots is transported to aerial parts of the plant through

(a) cortex (b) epidermis (c) phloem (d) xylem

113) During transpiration there is loss of

(a) carbon dioxide (b) oxygen (c) water (d) none of the above

114) Root hairs are

(a) cortical cell (b) projection of epidermal cell (c) unicellular (d) both b and c

115) Which of the following process requires energy?

(a) active transport (b) diffusion (c) osmosis (d) all of them

116) The wall of human heart is made of

(a) Endocardium (b) Epicardium (c) Myocardium (d) All of the above

117) Which is the correct sequence of blood flow

(a) ventricle → atrium → vein → arteries (b) atrium → ventricle → veins → arteries

(c) atrium → ventricle → arteries → vein (d) ventricles → vein → atrium → arteries

118) A patient with blood group O was injured in an accident and has blood loss. Which group of blood should be used by doctor for transfusion?

(a) O group (b) AB group (c) A or B group (d) all blood group

119) 'Heart of heart' is called

(a) SA node (b) AV node (c) Purkinje fibres (d) Bundle of His

120) Which one of the following shows correct composition of blood

(a) Plasma - Blood + Lymphocyte (b) Serum - Blood + Fibrinogen

(c) Lymph - Plasma + RBC + WBC (d) Blood - Plasma + RBC + WBC + Platelets

121) Bipolar neurons are found in

(a) retina of eye (b) cerebral cortex (c) embryo (d) respiratory epithelium

122) Site for processing of vision, hearing, memory, speech, intelligence and thought is

(a) kidney (b) ear (c) brain (d) lungs

123) In reflex action, the reflex arc is formed by

(a) brain, spinal cord, muscle (b) receptor, muscle, spinal cord

(c) muscle, receptor, brain (d) receptor, spinal cord, muscle

124) Dendrites transmit impulse _____ cell body and axon transmit impulse _____ cell body.

(a) away from, away from (b) towards, away from (c) towards, towards

(d) away from, towards

125) The outer most of the three cranial meninges is

(a) arachnoid membrane (b) piamater (c) duramater (d) myelin sheath

126) There are _____ pairs of cranial nerves and _____ pairs of spinal nerves.

(a) 12, 31 (b) 31, 12 (c) 12, 13 (d) 12, 21

127) The neurons which carries impulse from the central nervous system to the muscle fibre.

(a) afferent neurons (b) association neuron (c) efferent neuron

(d) unipolar neuron

128) Which nervous band connects the two cerebral hemispheres of brain?

(a) thalamus (b) hypothalamus (c) corpus callosum (d) pons

129) Node of Ranvier is found in

(a) muscles (b) axons (c) dendrites (d) cyton

130) Vomiting centre is located in

(a) medulla oblongata (b) stomach (c) cerebrum (d) hypothalamus

131) Nerve cells do not possess

(a) neurilemma (b) sarcolemma (c) axon (d) dendrites

132) A person who met with an accident lost control of body temperature, water balance, and hunger. Which of the following part of brain is supposed to be damaged?

(a) Medulla oblongata (b) cerebrum (c) pons (d) hypothalamus

133) Gibberellins cause:

(a) Shortening of genetically tall plants (b) Elongation of dwarf plants

(c) Promotion of rooting (d) Yellowing of young leaves

134) The hormone which has positive effect on apical dominance is:

(a) Cytokinin (b) Auxin (c) Gibberellin (d) Ethylene

135) Which one of the following hormones is naturally not found in plants.

(a) 2, 4-D (b) GA3 (c) Gibberellin (d) IAA

136) Avena coleoptile test was conducted by

(a) Darwin (b) N. Smit (c) Paal (d) F.W. Went

137) To increase the sugar production in sugarcanes they are sprayed with _____

(a) Auxin (b) Cytokinin (c) Gibberellins (d) Ethylene

138) LH is secreted by

(a) Adrenal gland (b) Thyroid gland (c) Anterior pituitary (d) Hypothalamus.

139) Identify the exocrine gland

(a) Pituitary gland (b) Adrenal gland (c) Salivary gland (d) Thyroid gland

140) Which organ acts as both exocrine gland as well as endocrine gland

(a) Pancreas (b) Kidney (c) Liver (d) Lungs

141) Which one is referred as “Master Gland”?

(a) Pineal gland (b) Pituitary gland (c) Thyroid gland (d) Adrenal gland

142) The plant which propagates with the help of its leaves is _____

(a) Onion (b) Neem (c) Ginger (d) Bryophyllum

143) Asexual reproduction takes place through budding in _____

(a) Amoeba (b) Yeast (c) Plasmodium (d) Bacteria

144) Syngamy results in the formation of_____

(a) Zoospores (b) Conidia (c) Zygote (d) Chlamydospores

145) The essential parts of a flower are_____

(a) Calyx and Corolla (b) Calyx and Androecium (c) Corolla and Gynoecium

(d) Androecium and Gynoecium

146) Anemophilous flowers have _____

(a) Sessile stigma (b) Small smooth stigma (c) Colored flower

(d) Large feathery stigma

147) Male gametes in angiosperms are formed by the division of _____

(a) Generative cell (b) Vegetative cell (c) Microspore mother cell (d) Microspore

148) What is true of gametes?

(a) They are diploid (b) They give rise to gonads (c) They produce hormones

(d) They are formed from gonads

149) A single highly coiled tube where sperms are stored, get concentrated and mature is known as

(a) Epididymis (b) Vasa efferentia (c) Vas deferens (d) Seminiferous tubules

150) The large elongated cells that provide nutrition to developing sperms are

(a) Primary germ cells (b) Sertoli cells (c) Leydig cells (d) Spermatogonia

151) Estrogen is secreted by

(a) Anterior pituitary (b) Primary follicle (c) Graffian follicle (d) Graffian follicle

152) Which one of the following is an IUCD?

(a) Copper – T (b) Oral pills (c) Diaphragm (d) Tubectomy

153) According to Mendel alleles have the following character

(a) Pair of genes (b) Responsible for character (c) Production of gametes

(d) Recessive factors

154) 9 : 3 : 3 : 1 ratio is due to

(a) Segregation (b) Crossing over (c) Independent assortment (d) Recessiveness

155) The region of the chromosome where the spindle fibres get attached during cell division

(a) Chromomere (b) Centrosome (c) Centromere (d) Chromonema

156) The centromere is found at the centre of the _____ chromosome

(a) Telocentric (b) Metacentric (c) Sub-metacentric (d) Acrocentric

157) The _____ units form the backbone of the DNA.

(a) 5 carbon sugar (b) Phosphate (c) Nitrogenous bases (d) Sugar phosphate

158) Okasaki fragments are joined together by _____.

(a) Helicase (b) DNA polymerase (c) RNA primer (d) DNA ligase

159) The number of chromosomes found in human beings are _____.

(a) 22 pairs of autosomes and 1 pair of allosomes (b) 22 autosomes and 1 allosome
(c) 46 autosomes (d) 46 pairs autosomes and 1 pair of allosomes.

160) The loss of one or more chromosome in a ploidy is called_____.

(a) Tetraploidy (b) Aneuploidy (c) Euploidy (d) polyploidy

161) Biogenetic law states that _____

(a) Ontogeny and phylogeny go together (b) Ontogeny recapitulates phylogeny
(c) Phylogeny recapitulates ontogeny
(d) There is no relationship between phylogeny and ontogeny

162) The 'use and disuse theory' was proposed by _____.

(a) Charles Darwin (b) Ernst Haeckel (c) Jean Baptiste Lamarck
(d) Gregor Mendel

163) Paleontologists deal with

(a) Embryological evidences (b) Fossil evidences (c) Vestigial organ evidences
(d) All the above

164) The best way of direct dating fossils of recent origin is by

(a) Radio-carbon method (b) Uranium lead method (c) Potassium-argon method
(d) Both (a) and (c)

165) The term Ethnobotany was coined by

(a) Khorana (b) J.W. Harsbberger (c) Ronald Ross (d) Hugo de Vries

166) Which method of crop improvement can be practised by a farmer if he is inexperienced?

(a) clonal selection (b) mass selection (c) pureline selection (d) hybridisation

167) Pusa Komal is a disease resistant variety of _____.

(a) sugarcane (b) rice (c) cow pea (d) maize

168) Himgiri developed by hybridisation and selection for disease resistance against rust pathogens is a variety of _____.

(a) chilli (b) maize (c) sugarcane (d) wheat

169) The miracle rice which saved millions of lives and celebrated its 50th birthday is _____.

(a) IR 8 (b) IR 24 (c) Atomita 2 (d) Ponni

170) Which of the following is used to produce products useful to humans by biotechnology techniques?

(a) enzyme from organism (b) live organism (c) vitamins (d) both (a) and (b)

171) We can cut the DNA with the help of

(a) scissors (b) restriction endonucleases (c) knife (d) RNAase

172) rDNA is a

(a) vector DNA (b) circular DNA (c) recombinant of vector DNA and desired DNA
(d) satellite DNA

173) DNA fingerprinting is based on the principle of identifying _____ sequences of DNA

(a) single stranded (b) mutated (c) polymorphic (d) repititive

174) Organisms with modified endogenous gene or a foregin gene are also known as

(a) transgenic organsims (b) genetically modified (c) mutated (d) both a and b

175) In a hexaploid wheat(2n = 6 x = 42) the haploid (n) and the basic(x) number of chromosomes respectively are

(a) n = 7 and x = 21 (b) n = 21 and x = 21 (c) n = 7 and x = 7

(d) n = 21 and x = 7

176) Tobacco consumption is known to stimulate secretion of adrenaline. The component causing this could be

(a) Nicotine (b) Tannic acid (c) Curcumin (d) Leptin

177) World 'No Tobacco Day' is observed on

(a) May 31 (b) June 6 (c) April 22 (d) October 2

178) Cancer cells are more easily damaged by radiations than normal cells because they are

(a) Different in structure (b) Non dividing (c) Starved mutation

(d) Undergoing rapid division

179) Which type of cancer affects lymph nodes and spleen?

(a) Carcinoma (b) Sarcoma (c) Leukemia (d) Lymphoma

180) Excessive consumption of alcohol leads to

(a) Loss of memory (b) Cirrhosis of liver (c) State of hallucination

(d) Supression of brain function

181) Coronary heart disease is due to

(a) Streptococci bacteria (b) Inflammation of pericardium

(c) Weakening of heart valves (d) Insufficient blood supply to heart muscles

182) Cancer of the epithelial cells is called

(a) Leukemia (b) Sarcoma (c) Carcinoma (d) Lipoma

183) Metastasis is associated with

(a) Malignant tumour (b) Benign tumour (c) Both (a) and (b)

(d) Crown gall tumour

184) Polyphagia is a condition seen in

(a) Obesity (b) Diabetes mellitus (c) Diabetes insipidus (d) AIDS

185) Where does alcohol effect immediately after drinking?

(a) eyes (b) auditory region (c) liver (d) central nervous system

186) Which of the following is / are a fossil fuel?

i. Tar
ii. Coal
iii. Petroleum

(a) i only (b) i only ii (c) ii and iii (d) i, ii and iii

187) What are the steps will you adopt for better waste management?

(a) reduce the amount of waste formed (b) reuse the waste (c) recycle the waste
(d) all of the above

188) The gas released from vehicles exhaust are
i. carbon monoxide
ii. Sulphur dioxide
iii. Oxides of nitrogen

(a) i and ii (b) i and iii (c) ii and iii (d) i, ii and iii

189) Soil erosion can be prevented by

(a) deforestation (b) afforestion (c) over growing (d) removal of vegetation

190) A renewable source of energy is

(a) petroleum (b) coal (c) nuclear fuel (d) trees

191) Soil erosion is more where there is

(a) no rain fall (b) low rainfal (c) rain fall is high (d) none of these

192) An inexhaustible resources is

(a) wind power (b) soil fertility (c) wild life (d) all of the above

193) Common energy source in village is

(a) electricity (b) coal (c) biogas (d) wood and animal dung

194) Green house effect refers to

(a) cooling of earth (b) trapping of UV rays (c) cultivation of plants
(d) warming of earth

195) A cheap, conventional, commercial and inexhaustible source of energy is

(a) hydropower (b) solar energy (c) wind energy (d) thermal energy

196) Global warming will cause

(a) raise in level of oceans (b) melting of glaciers (c) sinking of islands
(d) all of these

197) Which of the following statement is wrong with respect to wind energy

(a) wind energy is a renewable energy
(b) the blades of wind mill are operated with the help of electric motor
(c) production of wind energy is pollution free
(d) usage of wind energy can reduce the consumption of fossil fuels.

198) Which software is used to create animation?

(a) Paint (b) PDF (c) MS Word (d) Scratch

199) All files are stored in the _____

(a) Folder (b) box (c) Pai (d) scanner

200) Which is used to build scripts?

(a) Script area (b) Block palette (c) stage (d) sprite

201) Which is used to edit programs?

(a) Inkscape (b) script editor (c) stage (d) sprite

202) Where you will create category of blocks?

(a) Block palette (b) Block menu (c) Script area (d) sprite

203) Physics that deals with the effect of force on bodies is

(a) Kinematics (b) Dynamics (c) Statics (d) Mechanics

204) _____ deals with the bodies which are at rest under the action of forces.

(a) Statics (b) Kinematics (c) Dynamics (d) Mechanics

205) Study of moving bodies under the action of forces _____

(a) Statics (b) Kinematics (c) Dynamics (d) Mechanics

206) The resistance of a body to change its state of rest is called

(a) inertia of rest (b) inertia of motion (c) momentum (d) inertia of direction

207) The resistance of a body to change its state of motion is called

(a) force (b) momentum (c) inertia of motion (d) inertia of direction

208) The resistance of a body to change its direction of motion is

(a) force (b) momentum (c) inertia of motion (d) inertia of direction

209) Mixing sugar in a glass of milk using a spoon is _____

(a) force (b) momentum (c) inertia of motion (d) inertia of direction

210) The act of cleaning a carpet by heating it with a stick is an example for inertia of

(a) motion (b) direction (c) rest (d) momentum

211) A luggage is usually tied with a rope on the roof of the buses due to

(a) inertia of motion (b) inertia of direction (c) inertia of rest (d) momentum

212) The momentum of a heavy object at rest will be

(a) large (b) infinity (c) zero (d) small

213) Inertia is a _____

(a) property of matter (b) type of force (c) the speed of an object

(d) none of the above

214) A & B are two objects with masses 100 kg & 75 kg respectively, then _____

(a) both will have same inertia (b) B will have more inertia

(c) A will have more inertia (d) both will have less inertia

215) The physical quantity which is the measure of inertia is _____

(a) density (b) weight (c) force (d) mass

216) The sparks produced during sharpening a knife against a grinding wheel leaves the rim of the wheel tangentially. This is due to

(a) inertia of rest (b) inertia of motion (c) inertia of direction (d) force applied

217) The law that gives a qualitative definition of force is _____

(a) Newton's I law (b) Newton's II law (c) Newton's III law (d) Law of gravitation

218) The SI unit of force is

(a) energy (b) joule (c) newton (d) dyne

219) A force is applied by direct physical contact between two bodies is

(a) Contact force (b) Non - contact force (c) Balanced force (d) Unbalanced force

220) Gravitational, magnetic and electro magnetic forces are example for _____ force.

(a) Contact (b) Non - contact (c) Balanced (d) Unbalanced

221) Opening a door is an example of _____

(a) a non contact force (b) contact force (c) balanced (d) unbalanced

222) A body is said to be under balanced force when the resultant force applied on that body is

(a) zero (b) infinite (c) ore (d) none

223) _____ is an example for non - contact force.

(a) magnetic (b) frictional (c) rolling ball (d) none

224) If two equal forces acting along opposite direction is parallel to each other then they are called as

(a) resultant (b) equilibriant (c) like (d) unlike

225) The rotating or turning effect of a force is

(a) momentum (b) torque (c) couple (d) none

226) Acceleration of an object will increase as the net forces increases depending on its

(a) volume (b) mass (c) shape (d) density

227) The formula used for Newton's II law of motion

(a) Force = mass x acceleration (b) Velocity = acceleration x time

(c) Momentum = mass x velocity (d) Speed = distance ÷ time

228) An ice skater pushes harder with his leg muscles, he begins to move faster. This is an example of

(a) Newton's I law (b) Newton's II law (c) Newton's III law (d) Law of conservation

229) You're riding a bike when suddenly you hit a large rock. The bike stops moving but you fly over the handle - bars. This is an example of _____

(a) Newton's I law (b) Newton's II law (c) Newton's III law (d) Law of conservation

230) When you paddle a canoe, the canoe goes forward. This is an example of _____

(a) Newton's I law (b) Newton's II law (c) Newton's III law (d) Law of conservation

231) The acceleration in a body is due to

(a) balanced force (b) unbalanced force (c) equilibriant (d) couple

232) When an object undergoes acceleration

(a) its speed always increase (b) a force always acts an it

(c) its velocity always increases (d) velocity always decreases

233) A force of 20N is acting on an object of mass 10 kg. The acceleration produced is

(a) 1 ms^{-2} (b) 2 ms^{-2} (c) 20 ms^{-2} (d) 10 ms^{-2}

234) The physical quantity which is equal to rate of change of momentum is

(a) displacement (b) acceleration (c) force (d) impulse

235) The physical quantity which is equal to change in momentum is

(a) velocity (b) acceleration (c) force (d) impulse

236) An example for a vector quantity is

(a) speed (b) distance (c) momentum (d) length

237) SI unit of impulse is

(a) Ns (b) Ns^2 (c) kg ms^{-2} (d) kg m^2s^{-2}

238) The gravitational force of earth acting on a body of mass 1 kg is _____

(a) 8.9 N (b) 9.8 N (c) 980 N (d) 1 N

239) The resultant of action & reaction forces is _____

(a) greater than zero (b) less than zero (c) zero (d) ore

240) Rocket works principle of conservation of

(a) mass (b) energy (c) momentum (d) velocity

241) Which of the following statement is not correct for an object moving along a straight path in an accelerated motion?

(a) its speed keeps changing (b) its velocity always changes

(c) it always goes away from the earth (d) A force is always acting on it

242) According to the Newton's III law of motion, action & reaction

(a) always act on the same body (b) have same magnitude & direction

(c) always act in opposite directions (d) act on either body at normal to each other

243) A water tanker filled up to $\frac{2}{3}$ of its height is moving with a uniform speed, on sudden application of the brake, the water in the tank would

(a) move backward (b) be unaffected (c) rise upwards (d) move forward

244) A body of mass 1 kg is attracted by the earth with a force which is equal to

(a) 9.8 N (b) 6.67×10^{11} (c) 1 N (d) 9.8 ms^{-1}

245) The value of g

(a) increases as we go above the earth's surface

(b) decreases as we go to the centre of the earth (c) remains constant

(d) is more at equator and less at poles

246) The ball is thrown up, the value of g will be

(a) zero (b) +ve (c) -ve (d) negligible

247) The distance between two bodies becomes 6 times more than the usual distance, then force becomes

(a) 36 times (b) 6 times (c) 12 times (d) $\frac{1}{36}$ times

248) The gravitational force between two objects becomes _____ when the masses of both objects are halved without altering the distance between them.

(a) $\frac{f}{4}$ (b) $\frac{f}{2}$ (c) f (d) 2f

249) Newton's law of gravitation applies to

(a) small bodies only (b) plants only (c) all bodies irrespective of their size

(d) for solar system

250) A thief stole a box with valuable article of weight 'W' and jumped down a wall of height 'h'. Before he reached the ground he had experienced a load of

(a) $\frac{w}{2}$ (b) zero (c) w (d) 2w

251) If the radius of the earth were to shrink by one percent its mass remaining the same, the acceleration due to gravity on the earth's surface would

(a) decrease unchanged (b) remains (c) increase (d) none of these

252) The force of gravitation between two bodies in the universe does not depend on

(a) the distance between them (b) the product of their masses

(c) the sum of their masses (d) the gravitational constituent

253) At the surface of earth an object falling freely experiences an acceleration of

(a) 9.4 ms^{-2} (b) 9.1 ms^{-1} (c) 9.8 ms^{-2} (d) 9.6 ms^{-2}

254) The magnitude of the weight is expressed in the units of

(a) displacement (b) mass (kg) (c) force (Newton) (d) none

255) The value of universal gravitational constituent is

(a) 6.743 x 10^{-11} Nm^2 kg^{-1} (b) 6.673 x 10^{-11} Nm^2 kg^{-1} (c) 6.743 X 10^{-11} Nm^{-2} kg^{-1}

(d) 6.673 x 10^{-1} Nm^{-2} kg^{-1}

256) The weight of an object in a satellite orbiting around the earth is

(a) zero (b) actual weight (c) less than the actual weight

(d) greater than the actual weight

257) The motion of falling bodies towards earth is due to

(a) gravitational rotation (b) weightless mass (c) acceleration due to gravity

(d) gravitational force

258) Which quantity is zero at the centre of the earth?

(a) mass (b) weight (c) both mass & weight (d) none

259) The acceleration due to gravity varies on earth with

(a) distance (b) height (c) mass of an object (d) all the above

260) A lift of mass 1000 kg which is moving with an acceleration of 1 ms^{-2} in upward direction, then the tension developed in string which is connected to lift is

(a) 10,000 N (b) 10,800 N (c) 9800 N (d) 11000 N

261) If lift is accelerated in the upward direction, then the apparent weight of a body is

(a) more than true weight (b) equal to the true weight (c) less than true weight

(d) not equal to the true weight

262) Cutting tools have sharp edges to

(a) increase area of contact (b) decrease pressure

(c) decreases area and increase pressure (d) increase area & increase pressure

263) What would happen, if the force of gravity disappears suddenly on earth?

(a) All objects would move in a rapid whirl wing (b) All object will float

(c) not possible (d) cannot say

264) Rest and motion are _____

(a) Interrelated (b) Independent (c) either dependent or independent
(d) neither dependent nor independent

265) Force is called as _____

(a) pull (b) push (c) pull or push (d) none of these

266) Who formulated the theory of laws of motion?

(a) Newton (b) Galileo (c) Aristotle (d) Thales

267) _____ is the branch of physics that deals with the effort of force on bodies.

(a) Mechanics (b) Statics (c) Dynamics (d) kinematice

268) _____ deals with the bodies, which are at rest under the action of forces.

(a) Mechanics (b) Statics (c) Dynamics (d) Kinetics

269) _____ is the study of moving bodies under the action of forces.

(a) Mechanics (b) Statics (c) Dynamics (d) Kinetics

270) _____ deals with the motion of bodies without considering the cause of motion.

(a) Dynamics (b) Kinematics (c) Kinetics (d) statics

271) _____ deals with the motion of bodies considering the cause of motion.

(a) Dynamics (b) Kinematics (c) Kinetics (d) statics

272) Force independent is called _____ motion.

(a) Natural (b) Violent (c) radial (d) circular

273) Force dependent is called _____ motion.

(a) Natural (b) Violent (c) radial (d) circular

274) The product of mass and velocity is known as _____

(a) Impulse (b) Linear momentum (c) Resultant force (d) None

275) _____ helps to measure the magnitutde of a force.

(a) Impulse (b) Linear momentum (c) Resultant force (d) None

276) Unit of momentum is SI system _____

(a) Kg ms^{-2} (b) Kg ms^{-2} (c) Kg ms (d) Kg^2ms^{-2}

277) Unit of momentum in CGS system is _____

(a) g cms^{-2} (b) g cms^{-1} (c) g^2 cms^{-2} (d) g cm^2s^{-1}

278) Force is_____ quantity.

(a) Vector (b) Scalar (c) both (d) Tensor

279) Force has _____

(a) magnitude (b) direction (c) both (d) none

280) Based on the direction, Force can be classified into _____ types.

(a) 3 (b) 4 (c) 2 (d) none

281) _____ is equal to the vector sum of all the forces.

(a) Resultant force (b) Imulse (c) Torque (d) moment of force

282) Parallel forces acting in the same direction, the resultant force is _____

(a) $F_{net} = F_1 - F_2$ (b) $F_{net} = F_1 + F_2$ (c) $F_{net} = F_2 - F_1$ (d) $F_{net} = F_2 + F_1$

283) An example of unlike parallel force is _____

(a) Tug of war (b) Action of lever (c) pulling a cart (d) both a and c

284) An example of unbalanced force is _____

(a) Tug of war (b) Action of lever (c) pulling a cart (d) both a and c

285) The axis of the fixed edge about which the door is rotated is called as the _____

(a) axis of rotation (b) point of rotation (c) moment of force (d) both a and c

286) The rod will be turned about the fixed point is called as _____

(a) axis of rotation (b) point of rotation (c) moment of force (d) both b and c

287) _____ is measured by the product of the force and the perpendicular distance.

(a) Couple (b) Torque (c) force (d) none

288) Torque is a _____ quantity.

(a) vector (b) scalar (c) tensor (d) either scalar or vector

289) SI unit of Torque is _____

(a) Nm (b) Kgs^{-1} (c) gs^{-1} (d) Nm^{-1}

290) Turning a tap is an example of _____

(a) Moment of couple (b) Couple (c) Torque (d) both a and c

291) _____ is the measured by the product of the force and perpendicular distance between the line of action of forces.

(a) Couple (b) Moment of couple (c) torque (d) both a and b

292) The unit of moment of couple is _____

(a) Newton (b) Newton metre (c) Metre (d) Newton / metre

293) The unit of moment couple in CGS system is _____

(a) dyne cm^2 (b) dyne cm (c) dyne cm^3 (d) dyne $/cm^2$

294) In seasaw, when the heavier person comes closer to the pivot point the distance of the line of action of the force _____

(a) Increases (b) Decreases (c) None (d) both a and b

295) _____ the algebraic sum of moments in the clockwise direction is equal to the algebraic sum of the moments in the anticlockwise direction.

(a) Moment (b) Principle of moment (c) action of points (d) center of mass

296) Force = mass x _____

(a) distance (b) accelertion (c) velocity (d) displacement

297) The acceleration is produced along the radius called as _____

(a) centripetal acceleration (b) acceleration (c) radial acceleratio (d) both a and c

298) SI unit of Force is _____

(a) Newton (b) dyne (c) kg ms^{-2} (d) kg ms

299) CGS unit of Force is _____

(a) Newton (b) dyne (c) gms^{-2} (d) gms

300) One Newton is equal to _____

(a) 1 kg ms^{-1} (b) 1 kg ms^{-2} (c) 1 gms^{-2} (d) 1 gms

301) One dyne is equal to _____

(a) 1 g cm^{-2} (b) 1 g ms^{-1} (c) 1 kg ms^{-1} (d) 1 kg ms^{-2}

302) 1 Newton =_____ dyne.

(a) 10^3 (b) 10^5 (c) 10^6 (d) 10^4

303) A large force acting for a verys hort interval of time is called as _____

(a) Impulsive force (b) Resultant Force (c) force (d) none

304) Unit of Impulsive Force is _____

(a) Kg ms^{-2} (b) NS (c) both (a and b) (d) none

305) G is the _____

(a) Gas constant (b) Universal gravitational constant (c) force constant

(d) spring constant

306) Value of G is _____

(a) 6.674×10^{-10} N m^2 kg^{-2} (b) 6.674×10^{-9} N m^2 kg^{-2} (c) 6.674×10^{-11} N m^2 kg^{-2}

(d) 6.674×10^{-11} N m^2 kg^2

307) Radius of the Earth R value is _____

(a) 6388 km (b) 6478 km (c) 6378 km (d) 6578 km

308) $g = GM / R^2$ is the_____

(a) Acceleration due to radius of the Earth (b) Acceleration due to Gravity

(c) Acceleration due to Moon (d) Acceleration due to any planet

309) Mass of the Earth is

(a) $M = 5.729 \times 10^{24}$ kg (b) $M = 5.729 \times 10^{22}$ kg (c) $M = 5.729 \times 10^{24}$ kg

(d) $M = 5.729 \times 10^{23}$ kg

310) Value of g depends on.

(a) volume of earth (b) mass of earth (c) geometric centre of earth (d) none

311) Value of g is _____ at the centre of the Earth.

(a) 1 (b) zero (c) (a) and (b) (d) none

312) The value of acceleration due to gravity on the surface of the Moon is _____

(a) 1.256×10^2 ms^{-2} (b) 1.625 ms^{-2} (c) 1.276 ms^{-2} (d) 1276

313) If a person whose mass is 60 kg stands on the surface of Earth, his weight would be _____

(a) 688 N (b) 588 N (c) 690 N (d) 780 N

314) If a same person whose mass is 60 kg stands on the surface of Moon, his weight would be _____ N.

(a) 98.5 N (b) 97.5 N (c) 985 N (d) 975 N

315) Lift is moving upward with an acceleration, apparent weight is _____

(a) greater (b) lesser (c) zero (d) none

316) Lift is moving downward with an acceleration apparent weight is _____ than the actual weight.

(a) greater (b) lesser (c) zero (d) none

317) Lift is at rest, apparent weight is _____

(d) either a or b

(a) greater (b) lesser (c) equal

318) Lift is falling down freely, apparent weight is equal to _____

(a) greater (b) lesser (c) zero (d) either a or b

319) When a = g, this motion is called as _____

(a) free fall (b) resiessive fall (c) both a and b (d) neither a nor b

320) In free fall condition R = _____

(a) m (g+a) (b) R < W (c) R = W (d) R = O

321) _____ helps to predict the path of the astronomical bodies.

(a) Newton's law of gravitation (b) Acceleration (c) velocity (d) orbital speed

322) _____ helps to explain germination of roots is due to the property of geotropism.

(a) Newton's law of gravitation (b) Acceleration (c) velocity (d) rotational speed

323) The mass of the star can be calculated using the law of _____

(a) Gravitation (b) Inertia (c) motion (d) non

324) When a force is applied on bodies, they resist any change in their state. This property is called

(a) momentum (b) inertia (c) torque (d) impulse

325) Force is vector quantity that has

(a) magnitude only (b) direction only (c) both magnitude and direction

(d) None of these

326) Which of the Newton's laws give the definition of force as well as inertia?

(a) Newton's I law (b) Newton's II law (c) Newton's III law

(d) zeroth law of Thermodynamics

327) Drawing water from a well is an example of

(a) balanced forces (b) unbalanced forces (c) parallel force (d) axial forces

328) Moment of force is also termed as

(a) torque (b) inertia (c) impulse (d) None

329) Which of the following is an example for moment of couple?

(a) turning a tap (b) winding a screw (c) spinning of a top (d) All the above

330) Newton's second law is also called as

(a) law of force (b) law of inertia (c) law of impulse

(d) law of conservation of momentum

331) Which of the following statements are true about Newton's second law of motion?

(a) Force is directly proportional to the rate of change of momentum

(b) This law helps to measure the amount of force

(c) Force is required to produce the acceleration of a body

(d) All the above statements are true.

332) 1 kg f is equal to

(a) 980 N (b) 98 N (c) 9.8 N (d) 9.8 dyne

333) Impulse is product of

(a) force and time (b) mass and velocity (c) mass and acceleration

(d) force and velocity

334) Force between the masses is

(a) Always attractive (b) Always repulsive (c) either attractive or repulsive

(d) cannot be predicted

335) Force between the masses

(a) depends on the medium where they are placed

(b) does not depend on the medium (c) may or may not depend on the medium

(d) None of the above

336) SI unit of G is

(a) Nm^2kg^{-2} (b) Nm^2kg^2 (c) $Nm^{-2}Kg^2$ (d) $Nm^{-2}kg^{-2}$

337) When we move to a higher altitude from the surface of the earth, the value of 'g'?

(a) increases (b) reduces (c) becomes zero (d) becomes infinity

338) When we move deep below the surface of the earth, the value of 'g'?

(a) increases (b) reduces (c) becomes zero (d) becomes infinity

339) Direction of weight is

(a) always towards the centre of the earth

(b) always away from the centre of the earth (c) cannot be predicted

(d) either towards or away from the centre of the earth

340) A person whose mass is 60 kg on the surface of earth would weigh

(a) 97.5 N (b) 60 N (c) 588 N (d) 65 N

341) Apparent weight is the

(a) actual weight of the body (b) weight of the body acquired by gravity

(c) weight of the body due to other external forces acting on the body

(d) both b and c

342) Impulse is equal to

(a) ma (b) Ft (c) mv (d) $\frac{v-u}{t}$

343) The path of light is _____

(a) rays (b) point (c) lines (d) beam

344) The group of rays is _____

(a) lines (b) dots (c) beam (d) none ofthese

345) The velocity of light is _____

(a) $3x\ 10^{-8}\ ms^{-1}$ (b) $3 \times 10^{8}\ ms^{-1}$ (c) $3 \times 10^{8}\ km\ s^{-1}$ (d) $3 \times 10^{-8}\ km\ s^{-1}$

346) Velocity and wavelength of light are related by a relation

(a) g-cλ (b) $\gamma = \frac{c}{\lambda}$ (c) $c=\gamma\lambda$ (d) both b & c

347) Violet and red light _____ wavelengths.

(a) lowest, highest (b) highest, lowest (c) same (d) standard

348) We can see objects because of

(a) reflection (b) refraction (c) transmission (d) diffraction

349) _____ determines speed of light in a medium.

(a) thickness (b) wavelength (c) refractive index (d) both b and c

350) When light travels from rarer to denser medium, the refracted ray is _____ the normal.

(a) bent away (b) along (c) bent towards (d) just grazes the surface of separation

351) For air, the refractive index is

(a) 1 (b) infinity (c) 0 (d) 1

352) When a ray of light travels from one medium to another, it bends. This phenomenon is called.

(a) reflection (b) dispersion (c) refraction (d) interference

353) The splitting up of white light into colours is called

(a) reflection (b) refraction (c) scattering (d) dispersion

354) On a rainy day, small oily films on water show brilliant colours. This is due to

(a) scattering (b) dispersion (c) reflection (d) refraction

355) Rainbow formation is due to _____ water droplets.

(a) Ionisation (b) absorption of sunlight (c) reflection and refraction of sunlight (d) reflection of sunlight

356) Red light is used in traffic signals because

(a) It has highest wavelength (b) disperses least (c) red is symbol of danger (d) both a & b

357) A star appears twinkling in the sky because of _____ by the atmosphere.

(a) scattering of light (b) reflection of light (c) refraction of light (d) both a and b

358) When a beam of light is passed through a colloidal solution, the light will be

(a) scattered (b) reflected (c) absorbed (d) unchanged

359) If the energy of the incident and scattered beam of light are same, then it is called _____ scattering

(a) Ray light (b) Inelastic (c) Mie (d) Elastic

360) The scattering of light by colloidal particles is _____ scattering.

(a) Ray light (b) Mie (c) Raman (d) Tyndall

361) The scattering of light by pure light is _____ scattering.

(a) Rayleigh's (b) Mie (c) Raman (d) Tyndall

362) The scattered light in Raman scattering contains _____ lines

(a) Rayleigh's (b) stokes (c) Antistokes (d) all above

363) Convex lens produces a _____ beam of light.

(a) convergent (b) divergent (c) scattered (d) dispersed

364) A concave lens is a

(a) converging lens (b) diverging lens (c) inverting len (d) magnifying lens

365) In spherical lenses, all distance are measured from

(a) optic centre (b) principal focus (c) principal axis (d) centre of curvature

366) The part of the lens through which the ray of light passes without suffering deviation is called

(a) focus (b) centre of curvature (c) Pole (d) optic centre

367) Convex lens always forms a real image, if the object is situated beyond

(a) optic centre (b) centre of curvature (c) focus (d) radius of curvature

368) A convex lens forms a virtual image if the object is

(a) at F (b) At infinity (c) below F and 2 F

(d) below the lens and the principal focus

369) The image formation by spherical lenses is due to the phenomenon of

(a) reflection (b) refraction (c) interference (d) dispersion

370) According to snell's law

(a) $\mu=\frac{sini}{sinr}$ (b) $\mu=\frac{c_a}{c_m}$ (c) $\mu=\frac{sinr}{sini}$ (d) $\mu=\frac{c_m}{c_a}$

371) To get real, inverted and same size of the object, the object is placed in convex lens is _____

(a) At F (b) At 2 F (c) below O and F (d) At infinity

372) When a ray of light enters glass from water, it bends

(a) towards the normal due to decrease in the speed of light

(b) towards the normal due to increase in the speed of light

(c) Away from the normal due to increase in the speed of light

(d) Away from the normal due to decrease in the speed of light

373) The point at which the principal axis meets the surface of the lens is

(a) centre of curvature (b) radius of curvature (c) focus (d) pole

374) When a person uses a convex lens as a simple magnifying glass, the object must be placed at a distance

(a) less than one focal length (b) more than one focal length

(c) less than twice focal length (d) more than twice the focal length

375) The distance below the lens and focus is called

(a) pole (b) radius of curvature (c) focal length (d) principal axis

376) Highly enlarged image is obtained by convex lens when object is at

(a) infinity (b) F (c) below F & C (d) beyond 2F

377) Convex lens forms a highly diminished, real and inverted image, when an object is at

(a) infinity (b) F (c) below F & c (d) beyond 2 F

378) Convex lenses are used in

(a) camera (b) magnifying lens (c) microscope (d) all the above

379) Real images formed by convex lenses are always

(a) an the same side of the object (b) inverted (c) erect

(d) smaller than the object

380) An object is placed at 12 cm from a convex lens whose focal length is 10 cm. The image must

(a) Virtual and enlarged (b) real and reduced in size (c) virtual and reduced size

(d) real and enlarged size

381) The image produced by a concave lens is

(a) always virtual & enlarge (b) always virtual & diminished (c) always real

(d) Some times real, sometimes virtual

382) An object is placed 25 cm from a convex lens whose focal length is 10 cm. The image distance is _____ cm.

(a) 50 (b) 16.66 (c) 6.66 (d) 10

383) Magnification produced by a lens is

(a) $\frac{height\ of\ the\ image}{height\ of\ the\ object}$ (b) $\frac{Distance\ of\ the\ image}{Distance\ of\ the\ object}$ (c) Both a & b (d) $\frac{1}{v}-\frac{1}{f}=\frac{1}{u}$

384) Lens formula is

(a) $\frac{h^1}{h}$ (b) $\frac{1}{f}=\frac{1}{v}-\frac{1}{u}$ (c) $\frac{v}{u}$ (d) $(\mu-1)\left(\frac{1}{R_1}-\frac{1}{R_2}\right)$

385) Lens makers formula is

(a) $\frac{h^1}{h}$ (b) $\frac{1}{f}=\frac{1}{v}-\frac{1}{u}$ (c) $\frac{v}{u}$ (d) $(\mu-1)\left(\frac{1}{R_1}-\frac{1}{R_2}\right)$

386) In a concave lens when an object is between optic centre and infinity, the image will be

(a) at F (b) at 2F (c) between O & F (d) beyond 2F

387) The reciprocal of the focal length of the lens is

(a) Magnification (b) Power (c) Principal focus (d) None

388) The image formed by retina of human eye is

(a) Virtual and eract (b) Real & inverted (c) Virtual & inverted (d) Real & erect

389) The least distance of distinct vision is

(a) 25 m (b) 20 cm (c) 20 m (d) 25 cm

390) The change in the focal length of human eye is caused by

(a) Pupil (b) Ciliary muscles (c) Cornea (d) Iris

391) The phenomena of light responsible for the working of the human eye is

(a) Reflection (b) Refraction (c) Power (d) Accommodation

392) The amount of light entering the human eye is

(a) Ciliary muscles (b) Pupil (c) Cornea (d) Iris

393) The part of the eye refracts light entering the eye from external objects?

(a) Lens (b) Cornea (c) Iris (d) Pupil

394) The diameter of eyeball is

(a) 2.3 cm (b) 23 cm (c) 2.3 mm (d) 23 mm

395) A person cannot see objects clearly beyond 50 cm, The power of lens to correct the vision is

(a) +5 D (b) -0.5 D (c) -2 D (d) +2 D

396) The human eye forms the image of an object at its

(a) Cornea (b) Iris (c) Pupil (d) Retina

397) When a person is myopic, he / she can clearly see

(a) Both nearby & far off (b) Only nearby objects (c) Only far off objects

(d) Neither nearby nor far off objects

398) The defect of myopia can be corrected by using

(a) Concave (b) Convex (c) Combination of lenses (d) None

399) A convex lens is used to correct the defect of

(a) Presbyopia (b) Hypermeteropia (c) Myopia (d) Astigmatism

400) Presbyopia is due to

(a) Lengthening of eye ball (b) Shortening of eye ball (c) Ageing

(d) Development of Cataract

401) Presbyopia is corrected by

(a) Concave (b) Focal (c) Convex (d) Cylindrical

402) In Astigmatism, eye cannot see

(a) distance object (b) nearby object (c) parallel lines (d) both a & b

403) Cylindrical lens is used to correct

(a) Myopia (b) Hypermetropia (c) Presbyopia (d) Astigmatism

404) Simple microscope consists of

(a) Short focal length convex (b) Large focal length of concave

(c) Short focal length of concave (d) Large focal length of convex

405) Simple microscopes are used

(a) To observe paths of flower (b) Watch repair (c) Observe finger prints

(d) All the above

406) Magnification of compound microscope is given by

(a) $M=1+\frac{D}{f}$ (b) $m=\frac{v}{u}$ (c) $\frac{u}{v}(1+\frac{D}{fe})$ (d) $\frac{u}{v}(1-\frac{D}{fe})$

407) Magnification power of microscopes can be included by using of lengths

(a) Large focal eye piece (b) Objective lens (c) Shorter focal length of the eye piece

(d) Larger focal length of objective

408) To heavenly objects like stars _____ is used

(a) Simple microscope (b) Compound microscope (c) Terrestrial (d) Astronomical

409) To increase the magnification of the telescope _____

(a) Increase the focal length of the objective

(b) Increase the focal length of the eye piece

(c) Decrease the focal length of the eye piece (d) Both a & c

410) To view the objects on the surface of the earth.

(a) Simple (b) Compound Microscope (c) Terrestrial (d) Astronomical

411) The resolving power depends on

(a) Dimetal of the lens (b) Wavelength (c) Refractive index (d) a & b

412) A lens which collects image at back of telescope

(a) Objective lens (b) Diverging (c) Converging (d) Polars

413) In compound microscope, as compare to eye piece, objective lens has _____ focal length.

(a) -ve focal length (b) Zero (c) Small (d) Large

414) A magnifying glass is also called

(a) Telescope (b) Compound microscope (c) Simple microscope

(d) Astronomical telescope

415) As compare to single lens, compound microscope gives _____ magnification

(a) Smaller (b) Greater (c) No (d) Equal

416) As compare to single lens, compound microscope gives _____

(a) Smaller of eye lens of an adult human being is a 3D (b) 4D (c) 5D (d) 6D

417) In a simple microscope to obtain higher magnification, the focal length convex lens should be _____

(a) Large (b) Small (c) 1 cm (d) None

418) An inverted image of the object is formed in _____

(a) Simple microscope (b) Compound microscope (c) Astronomical microscope

(d) Both b & c

419) Device used to see very very small object is ____

(a) Simple microscope (b) Compound microscope (c) Telescope (d) Mirror

420) In compound microscope _____ lenses are used.

(a) 2 (b) 3 (c) 4 (d) 1

421) Image formed in simple microscope is

(a) Erect (b) Inverted (c) Smaller than object (d) Bright

422) Objective of telescope is of

(a) Short focal length & short aperture (b) Short focal length & large aperture

(c) Large focal length & large aperture (d) Large focal length & short aperture

423) Presbyopia is corrected by _____

(a) Concave (b) Focal (c) Convex (d) Cylindrical

424) To increase the magnification of the telescope, the focal length of the _____

(a) Objective lens is small and eye lens is large

(b) Objective lens is large and eye lens is small

(c) Objective lens and eye lens are small (d) Objective lens and eye lens are large

425) The path of light is called_____

(a) ray of light (b) beam of light (c) wave of light (d) none

426) Group of these rays are called_____

(a) ray of light (b) beam of light (c) wave of light (d) both a and b

427) Some of the sources emit their own light and they are called as_____

(a) Luminous objects (b) Non-luminous objects (c) bright object (d) both a and b

428) The speed of light in vacuum or air is_____

(a) $C = 3 \times 10^8$ m/s (b) $C = 3 \times 10^8$ m/s^2 (c) $C = 2 \times 10^8$ m /s

(d) $C = 2 \times 10^{10}$ m /s^2

429) Velocity of light C = _____

(a) γ/λ (b) $\gamma\lambda$ (c) $\gamma\lambda^4$ (d) $\gamma\lambda^2$

430) Violet has the_____wave length, red light has the_____wave length.

(a) highest, lowest (b) lowest, highest (c) moderate, lowest (d) moderate, highest

431) The velocity of light is_____in a rarer medium and _____in a lesser medium.

(a) less, more (b) more, less (c) both (d) none

432) Refraction of light obeys_____law.

(a) lenzs (b) snells (c) faraday (d) henry

433) Refractive index can be represented by _____

(a) γ (b) λ (c) μ (d) none

434) The speed of light in a medium is_____and if the refractive index of the medium is_____

(a) high, less (b) less, high (c) both a and b (d) none

435) When light travels from a denser medium into a rarer medium, the refracted ray is_____

(a) Bent away from normal (b) Bent towards normal (c) no bending (d) none

436) When light travels from a rarer medium into a denser medium, the refracted ray is _____ the normal drawn to the interface.

(a) Bent away from normal (b) Bent towards normal (c) no bending (d) none

437) _____is the fundamental and natural source of light.

(a) Sun (b) Moon (c) asteroids (d) comets

438) A source of light produces a light of single colour, it is known as a _____ source.

(a) Monochromatic (b) Dichromatic (c) polychromatic (d) none

439) _____ produces a white light which contains light of different colours

(a) Monochromatic (b) Dichromatic (c) composite source light (d) none

440) _____light is a composite light of different colours or wavelengths.

(a) Sun (b) Moon (c) sodium lamp (d) none

441) _____ is an example for a composite source.

(a) Kerosene (b) Mercury vapour lamp (c) sodium lamp (d) none

442) The band colours is termed as _____

(a) Band width (b) Spectrum (c) wavelength (d) frequency

443) Angle of refraction is the_____for red and the_____for violet.

(a) smallest, highest (b) highest, smallest (c) either a or b (d) none

444) Refractive index of a medium is _____on the wavelength of the light.

(a) Dependent (b) Independent (c) either a or b (d) none

445) If the energy of the incident beam of light and the scattered beam of light are same. Then it is called as

(a) Elastic scattering (b) Inelastic scattering (c) Rayleigh scattering

(d) Mie scattering

446) If the energy of the incident beam of light and the scattered beam of light are not same. Then it is called as _____ scattering.

(a) Elastic (b) Inelastic (c) Rayleigh (d) Mie

447) The scattering of sunlight by the atoms or molecules of the gases in the earth's atmosphere is known as _____ scattering.

(a) Elastic (b) Inelastic (c) Rayleigh (d) Mie

448) The amount of scattering is inversely proportional to _____ wavelength.

(a) λ (b) λ^2 (c) λ^3 (d) λ^4

449) Mie scattering is otherwise called as _____ scattering.

(a) Elastic (b) Inelastic (c) dependent (d) Tyndall

450) _____a microscopically small substance that is equally dispersed throughout another material.

(a) Colloid (b) Suspension (c) pure liquid (d) solid particle

451) When a parallel beam of monochromatic light passes through a gas or liquid or solid, a part of light rays are_____

(a) scattered (b) not scattered (c) reflected (d) refracted

452) A _____ is an optically transparent medium bounded by two spherical refracting surfaces or one plane and one spherical surface.

(a) Convex (b) Concave (c) Lens (d) mirror

453) Convex lens is also called as ___ lens.

(a) Converging (b) Diverging (c) partly converging (d) partly diverging

454) Concave lens is also called as ____lens.

(a) Converging (b) Diverging (c) partly converging (d) partly diverging

455) If one of the faces of a bi-convex lens is plane, it is known as a_____

(a) Plano-convex lens (b) Plano—concave lens (c) converging (d) diverging

456) If one of the faces of a bi-concave lens in plane, it is known as a _____.

(a) Plano-convex lens (b) Plano—concave lens (c) converging (d) diverging

457) If object at Infinity, the size of the image is much _____ than that of the object.

(a) smaller (b) larger (c) either a or b (d) nethier a nor b

458) If object is placed between F and C, the size of the image is much _____than that of the object.

(a) smaller (b) larger (c) either a or b (d) none

459) _____ lenses are used as camera lenses.

(a) Concave (b) Convex (c) bi convex (d) bi concave

460) _____ lenses are used as magnifying lenses.

(a) Concave (b) Convex (c) bi convex (d) bi concave

461) Concave lenses are used as eye lens of _____ telescope.

(a) Hubble (b) Galilean (c) terrestrial (d) astronomical

462) The distances measured against the direction of incident light are taken as _____

(a) positive (b) negative (c) nagative or positive (d) none

463) The distances measured upward and perpendicular to the principal axis is taken as _____

(a) positive (b) negative (c) either positive or nagative (d) none

464) The distances measured downward and perpendicular to the pricipal axis is taken as_____

(a) positive (b) negative (c) either positive or nagative (d) none

465) If the magnification is greater than 1, then we get an_____ image.

(a) diminished (b) enlarged (c) enlarged or diminished (d) same size

466) If the magnification is less than 1, then we get an _____ image.

(a) diminished (b) enlarged (c) enlarged or diminished (d) same size

467) All lens are made up of transparent materials. Any optically transparent material will have a _____

(a) velocity index (b) Refractive index (c) medium index (d) none

468) The lens maker formula is _____

(a) $\frac{1}{f} = (\mu - 1)\left[\frac{1}{R_2} - \frac{1}{R_1}\right]$ (b) $\frac{1}{f} = (\mu - 1)\left[\frac{1}{R_1} - \frac{1}{R_2}\right]$ (c) $\frac{1}{f} = (\mu + 1)\left[\frac{1}{R_2} - \frac{1}{R_1}\right]$

(d) $\frac{1}{f} = (\mu - 1)\left[\frac{1}{R_1} + \frac{1}{R_2}\right]$

469) Power of lens =_____.

(a) $\frac{1}{u}$ (b) $\frac{1}{f}$ (c) $\frac{1}{d}$ (d) $\frac{1}{D}$

470) Len's formula and len's maker formula are only applicable for only _____ lenses.

(a) thick (b) thin (c) either thick or thin (d) none

471) SI unit of power of lens is _____.

(a) Ampere (b) Dioptre (c) Newton (d) Gauss

472) 1 Diaptore = _____.

(a) 1 cm (b) 2 m (c) 1 m^{-1} (d) 2 m^{-1}

473) The eye ball is approximately spherical in shape with a diameter of about _____ cm.

(a) 2.6 cm (b) 2.3 cm (c) 2.1 cm (d) 2.3 m/m

474) _____ is the coloured part of the eye.

(a) Cornea (b) Iris (c) retina (d) eyeball

475) _____is the centre part of the Iris.

(a) Cornea (b) Iris (c) Pupil (d) retina

476) _____is the back surface of the eye.

(a) Pupil (b) Retina (c) Iris (d) cornea

477) _____ is the important part of human eye.

(a) Pupil (b) Retina (c) Eye lens (d) cornea

478) _____ is convex in nature.

(a) Pupil (b) Retina (c) Eye lens (d) cornea

479) _____ senses it as erect image.

(a) Eye (b) Brain (c) optic nerve (d) cornea

480) The ciliary muscle releases and makes the eye lens _____.

(a) thinner (b) thicker (c) thicker or thinner (d) none

481) Time travel between two consecutive light pulses is less than _____ second.

(a) 0.4 (b) 0.1 (c) 0.2 (d) 0.3

482) Near point of eye is _____cm for normal human eye.

(a) 2.5 cm (b) 25 cm (c) 25.1 cm (d) 0.25 cm

483) _____ is infinity for normal eye.

(a) Near point (b) Far point (c) midpoint (d) none

484) A normal human eye can clearly see all the objects placed between _____ cm and infinity.

(a) 25 (b) 45 (c) 20 (d) 15

485) Myopia is also known as _____.

(a) Short sightedness (b) Long sightedness (c) prespyopia (d) either a or c

486) Due to Myopia, the image of distant objects are formed before the _____.

(a) Retina (b) Iris (c) cornea (d) pupil

487) Myopia defect can be corrected using a _____ lens.

(a) Concave (b) Convex (c) plano concave (d) bifocal

488) The focal length of the required concave lens is f = _____.

(a) -x (b) +x (c) x^2 (d) $\frac{1}{x}$

489) The focal length of the required concave lens is f = _____.

(a) $\frac{xy}{x-y}$ (b) $\frac{xy}{x+y}$ (c) both ‘a’ and 'b' (d) none

490) Hypermeteropia also known as _____.

(a) Short sightedness (b) Long sightedness (c) myophia (d) either a or c

491) Due to hypermeteropia, the image of nearby objects are formed behind the _____.

(a) Retina (b) Iris (c) cornea (d) pupil

492) Hypermeteropia defect can be corrected using a _____ lens.

(a) convex (b) concave (c) plano convex (d) bifocal

493) The focal length of the required convex lens is f = _____.

(a) $\frac{dD}{d-D}$ (b) $\frac{dD}{d+D}$ (c) $\frac{d-D}{dD}$ (d) $\frac{d+D}{dD}$

494) Which one is called as old age hypermetropia?

(a) Presbyopia (b) Myopia (c) hypermetropia (d) hypermyopia

495) In which, upper part consists of _____ used for distant visionand the lower part consists of_____ used for reading purposes.

(a) concave, convex lens (b) convex, concave lens (c) convex, biconvex

(d) concave, biconcave

496) Astigmatism can be corrected by using _____ lenses.

(a) cylindrical (b) square (c) spherical (d) rectangular

497) _____ has a convex lens of short forcal length.

(a) Simple microscope (b) Compound microscope (c) both a and b (d) none

498) For normal human eye D =_____cm.

(a) 45 (b) 2.5 (c) 25 (d) 35

499) _____ are used by watch repairers and jewellers.

(a) Simple microscope (b) Compound microscope (c) biconvex lens

(d) concave lens

500) _____ to observe parts of flower, insects, etc.

(a) Simple microscope (b) Compound microscope (c) biconvex lens (d) none

501) _____ is also used to see tiny objects.

(a) Simple microscope (b) Compound microscope (c) biconvex lens

(d) concave lens

502) _____ works based on the principle of vernier, its least count is 0.01 mm.

(a) Simple (b) Compound (c) Travelling microscope (d) none

503) The first telescope was invented by _____in 1608.

(a) Johann Lippershey (b) Galileo (c) Newton (d) Aristotile

504) _____ made a telescope to observe distant stars.

(a) Galileo (b) Kepler (c) Newton (d) Aristotile

505) Astronomical telescope is similar to this _____ telescope.

(a) Kepler (b) Galileo (c) Newton (d) Aristotile

506) _____ telescope is used to view heavenly bodies like stars and planets.

(a) Astronomical (b) Terrestial (c) both a and b (d) none

507) _____ provides an erect image.

(a) Astronomical (b) Terrestial telescope (c) both a and b (d) none

508) Power of lens is -40. its focal length is _____.

(a) 4 m (b) -—40 m (c) -0.25 m (d) -—25 m

509) The optical phenomena, twinkling of stars is due to _____.

(a) Atmospheric reflection (b) Total reflection (c) Atmospheric refraction (d) Total refraction

510) Convex lens focus a real, point sized image at focus, the object is placed _____.

(a) At focus (b) Between F and 2F (c) At infinity (d) At 2F

511) The unit of power of lens is _____.

(a) metre (b) centimeter (c) Diopter (d) M^{-1}

512) The line perpendicular to the reflective surface is the _____

(a) normal (b) line of refraction (c) line of reflection (d) line of incidence

513) Light travels fastest through which of the following material.

(a) Water (b) air (c) diamond (d) glass

514) Dark muscular diaphragm that controls the _____

(a) Pupil (b) eye lens (c) Retina (d) Iris

515) The screen where the image is formed by the _____

(a) Retina (b) eye lens (c) sclera (d) Cornea

516) If the time interval between two consecutive light pulses is less than _____

(a) 0.2 sec (b) 0.1 sec (c) 0.3 sec (d) 0.4 cm

517) Focal length of the required concave lens is _____

(a) $f = \frac{xy}{x-y}$ (b) $f = \frac{x+y}{x-y}$ (c) $f = \frac{x-y}{x+y}$ (d) $f = \frac{xy}{x-y}$

518) Corrected vision using a convex lens _____

(a) Myopia (b) Presbyopia (c) Hypermeteropia (d) Astigmatism

519) Simple microscope has a_____ of short focal length.

(a) Cylindrical lens (b) bifocal lens (c) concave lens (d) convex lens

520) Which of the following diseases affect the old age person.

(a) Hypermeteropia (b) Myopia (c) Presbyopia (d) Astigmatism

521) _____ is used to measure very small length with high degree of accuracy.

(a) Travelling microscope (b) Simple microscope (c) Compound microscope (d) Telescope

522) The first telescope was invented by _____

(a) Oersted (b) Johann Lippershey (c) Galelio Galili (d) Jeffreys Moseley

523) Ray from air medium is refracted to medium two in which light travels with speed of 2 x 10^8 ms^{-1}. Find the refractive index of the second medium with respect to air medium.

(a) 0.707 (b) 0.303 (c) 1.5 (d) 0.613

524) Convex mirror will produce _____ of your face.

(a) image of the same size (b) magnified image (c) diminished image

(d) blurred image

525) Light which is incident on a flat surface makes an angle of 15° with the surface. What is the angle of incidence?

(a) 85° (b) 15° (c) 180° (d) 75°

526) The angle of refraction is smallest in _____ colour.

(a) green (b) blue (c) red (d) violet

527) _____ lens is thicker at the centre than at the edge.

(a) Concave (b) Convex (c) Spherical (d) Bifocal

528) When an object is placed in _____ he collected image size is bigger than that of an object.

(a) at infinity (b) behind center of curvature (c) at the center of curvature

(d) between the centre of curvature and principal force

529) _____ lenses are used to correct the defect of myopia.

(a) Convex (b) Concave (c) Bifocal (d) None of these

530) _____ is the correct lens formula for spherical lenses.

(a) $\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$ (b) $\frac{1}{f} = \frac{1}{u} - \frac{1}{v}$ (c) $\frac{1}{u} = \frac{1}{f} - \frac{1}{v}$ (d) $\frac{1}{f} = \frac{1}{v} + \frac{1}{u}$

531) Among the following _____ is the coloured part of eye.

(a) cornea (b) pupil (c) Iris (d) Retina

532) _____ helps to change the focal length of the eye lens.

(a) Retina (b) Ciliary muscle (c) Pupil (d) Eye lens

533) _____ can be corrected by bifocal lenses.

(a) Myopia (b) Hypermetropia (c) Presbyopia (d) Astigmatism

534) Speed of light in vacuum or air is _____.

(a) 3×10^8 m/s (b) 3×10^8 cm/s (c) 3×10^8 m/hr (d) 3×10^8 cm/hr

535) Which of the following has the fastest process of heat transfer?

(a) Conduction (b) convection (c) Radiation (d) all the above

536) At what temperature are Celsius and Fahrenheit equal

(a) 40° (b) -40° (c) 0^0 (d) 100°

537) In which process heat is transferred directly from one molecule to other?

(a) conduction (b) convection (c) Radiation (d) all the above

538) Temperature is a property which determines

(a) amount of heat a body contains (b) total absolute energy a body has

(c) direction of flow of heat (d) thermal energy

539) SI unit of temperature is

(a) celsius (b) fahrenheit (c) kelvin (d) none

540) SI unit of heat is

(a) calorie (b) joule (c) kilo calorie (d) kelvin

541) All the substances will undergo the following changes like _____ when heated.

(a) increase in temperature (b) expansion of substance (c) change of state
(d) all the above

542) Thermal expansion atparticular temperature is less in

(a) solid (b) liquid (c) gas (d) all above

543) Increase in area due to heating is called

(a) Linear expansion (b) Superficial expansion (c) Cubical expansion
(d) real expansion

544) Change in volume of a solid during heating is

(a) Linear expansion (b) Superficial expansion (c) Cubical expansion
(d) apparent expansion

545) Linear expansion is the change in _____ when object is heated or cooled.

(a) length (b) area (c) volume (d) density

546) Fundamental laws of gases are

(a) Boyle's law (b) Charles's law (c) Avogadro (d) all the above

547) At constant temperature volume is inversely proportional to pressure of a gas is known as

(a) Boyle's law (b) Charles (c) Avogadro (d) None

548) According to Charles's law

(a) $P \propto \frac{1}{V}$ (b) $V \propto T$ (c) $V \propto n$ (d) all the above

549) Gas laws state the relationship between _____ properties of gas.

(a) pressure (b) volume (c) Temperature & mass (d) all the above

550) SI unit of temperature is _____

(a) K (b) °C (c) /°C (d) ^0F

551) The unit of coefficient of real expansion is

(a) K (b) °C (c) K^{-1} (d) °F

552) The formula for conversion of temperature from Kelvin to Celsius is

(a) C = K + 73 (b) C = K - 273 (c) C = K + 460 (d) C = K - 460

553) If the atoms or molecules of a gas do not interact with each other, then the gas is said to be an ____

(a) Inert gas (b) Ideal gas (c) Imperfect fas (d) Pure gas

554) The degree of hotness or coldness of a body is called _____

(a) Energy (b) Thermal energy (c) Temperature (d) Heat capacity

555) Charles's law is also called as _____

(a) the law of temperature (b) the law of pressure (c) the law of volume
(d) the law of gas

556) Absolute scale is also called as _____

(a) Kelvin scale (b) Celsius scale (c) Centigrade scale (d) Fahrenheit scale

557) The amount of heat energy required to rise the temperature of 1gram of water through 1^0C is _____

(a) One kilo calorie (b) One joule (c) One kelvin (d) One caloric

558) Thermal conduction in metal is due to

(a) Free electrons (b) bound electrons (c) Vibration of molecules (d) vibration of atoms

559) _____is the primary source of thermal energy for all living organisms.

(a) Sun (b) Moon (c) stars (d) None

560) _____is the cause and temperature is the effect.

(a) Thermal energy (b) Heat energy (c) light energy (d) both a and c

561) All living organisms need a particular _____for their survival.

(a) Temperature (b) pressure (c) volume (d) none

562) The temperature is higher for a _____ body than for a _____ body.

(a) Hotter, Chiller (b) Hotter, Colder (c) Chiller, Hotter (d) Colder, Chiller

563) _____also defined as the property which determines whether a body is in equilibrium or not with the surroundings

(a) Temperature (b) pressure (c) volume (d) none

564) _____is the property which determines the direction of flow of heat.

(a) Temperature (b) Pressure (c) volume (d) density

565) It is a _____quantity

(a) Scalar (b) Vector (c) tensor (d) all

566) A temperature difference of 10C is equal to that of _____

(a) 1K (b) 2K (c) 3K (d) 6k

567) _____Kelvin is the absolute scale of temperature of the body.

(a) One (b) Zero (c) None (d) 273

568) 0K=_____

(a) 273K (b) — 2730C (c) both (d) none

569) _____Energy always flow from one body to the other due to a temperature difference between them.

(a) COOL (b) Heat (c) hot (d) cold

570) If two bodies are said to be in thermal equilibrium then, they will be at the_____temperature.

(a) Same (b) Different (c) either a or b (d) none

571) The _____ energy is transferred from one body to another, this results in the rise or lowering of the temperature of either of the bodies.

(a) Thermal (b) Heat (c) cold (d) none

572) The expansion of _____can be seen when a thermometer is placed in warm water.

(a) Solids (b) Liquids (c) Gases (d) plasma

573) All forms of matter undergo expansion on _____

(a) Heating (b) cooling (c) vapoursing (d) none

574) Co-efficient of cubic expansion of water is _____

(a) $20.7 \times 10^{-5}K^{-1}$ (b) $20.7 \times 10^{-5}K^{-1}$ (c) $2.07 \times 10^{-5}\ K^{-1}$ (d) $20.7 \times 10^{-5}K^{-1}$

575) The coefficient of cubical expansion of liquid is _____of temperature.

(a) dependent (b) Independent (c) either a or b (d) none

576) Value for Gases_____ on the temperature of gases

(a) Dependent (b) Independent (c) either a or b (d) none

577) The SI unit of coefficient of real expansion is _____

(a) Kelvin (b) 1/K (c) 1/C (d) 1/F

578) According to Boyle's law,pressure is _____ proportional to its pressure.

(a) Directly (b) indirectly (c) invariably (d) either a or b

579) According to Boyle's law, the product of its pressure and volume is a _____

(a) Constant (b) not constant (c) Variable (d) none

580) According to Charles 's law, the volume of the gas is_____proportional to the temperature of the gas.

(a) Indirectly (b) directly (c) variably (d) none

581) According to Avogadro's law, Volume is _____proportional to number of atoms or molecules present in it.

(a) Indirectly (b) directly (c) variably (d) none

582) _____is the total number of atoms per mole of the substance.

(a) Avogadro's Number (b) Mole (c) both a and b (d) none

583) Boltzmann constant _____

(a) $1.38 \times 10^{-23}JK$ (b) $1.38 \times 10^{-23}JK^{-1}$ (c) $138 \times 10^{-23}JK$ (d) $138 \times 10^{-23}JK^{-1}$

584) Temperature is the

(a) average kinetic energy of the molecules

(b) average potential energy of the molecules (c) total energy of the molecules.

(d) none of the above

585) The absolute scale of temperature of a body is

(a) 1 K (b) 0 K (c) 100 K (d) None

586) Two or more physical system or bodies are said to be in equilibrium

(a) if there is a flow of thermal energy between the systems.

(b) if there is no net flow of thermal energy between the systems

(c) if there may or may not be a flow of thermal energy between the systems

(d) None of the above

587) Unit of heat energy is

(a) Kelvin (b) Calorie (c) Celsius (d) Fahrenheit

588) When a body is heated or cooled

(a) the mass of the system is also altered (b) the mass of the system is not altered

(c) the mass of the system may or may not be altered (d) none of the above

589) For any exchange of heat

(a) heat gained by the cold system is equal to the heat lost by the hot system.

(b) heat gained by the cold system is more than the heat lost by the system.

(c) heat gained by the cold system is lesser than the heat lost by the system.

(d) none of the above

590) One kilo calorie is defined as the amount of heat energy required to rise the temperature of

(a) 1 kg through 1^o C (b) 1 g through 1^o C (c) 1 kg through 100^o C

(d) 1 g through 100^o C

591) When a certain amount of heat energy is given to the substance

(a) Temperature of the substance rises (b) the substance may change its state

(c) The substance will expand (d) All the above

592) Rise in temperature depends on the

(a) nature and mass of the substance (b) nature of the substance only

(c) mass of the substance only (d) none of the above

593) The SI unit of co-efficient of linear expansion is

(a) K^{-1} (b) K (c) mK (d) $m^{-1}K^{-1}$

594) The co-efficient of linear expansion is

(a) different for different material (b) same for all the metals

(c) independent on the nature of the metals

(d) different for same metals under different conditions

595) Which of the statements given below is true?

(a) The real expansion is always more than that of apparent expansion

(b) The real expansion and apparent expansion are equal

(c) The real expansion is always lesser than that of apparent expansion

(d) None of the above

596) Charles's law is otherwise called as

(a) law of mass (b) law of temperature (c) law of pressure (d) law of volume

597) According to Avogadro's law

(a) $\frac{V}{T}$ is constant (b) PV = a constant (c) $\frac{V}{n}$ = a constant (d) Vn = a constant

598) Practically in an ideal gas

(a) there is no interaction of molecules (b) the interaction of molecules are weaker

(c) the interaction of molecules are stronger

(d) the interaction of molecules are either weaker or stronger

599) An ideal gas obeys

(a) Boyle's law (b) Avogadro's law (c) Charles's law (d) All the above

600) The value of Boltzmann's constant is

(a) 1.38×10^{-23} JK^{-1} (b) 1.38×10^{-23} JK^{-1} (c) 1.38×10^{-21} JK^{-1}

(d) 1.38×10^{-22} JK^{-1}

601) The value of universal gas constant is _____.

(a) 8.21 J mol^{-1} K^{-1} (b) 8.27 J mol^{-1} K^{-1} (c) 8.31 J mol^{-1} K^{-1} (d) 8.21 J mol^{-1} K^{-1}

602) A series circuit consists of three resistors with values of 140, 250 and 220. The total resistance is

(a) 330 (b) 610 (c) 720 (d) None of the above

603) When will be the current flow in a circuit?

(a) A switch is closed (b) A switch is opened (c) Switch is either open or closed

(d) None of the above

604) When one of three series resistors is removed from a circuit and the circuit is reconnected the current

(a) increase by half (b) increases (c) decreases by half (d) none of the above

605) The S1 unit of power is

(a) joule (b) ampere (c) Watt (d) ohm

606) A parallel circuit consist of three resistors with values of 430, 210 and 100. The total resistance is

(a) 0.017 ohm (b) 58.82 ohm (c) 58.82 kilo ohm (d) None of the above

607) According to Ohm's law if voltage increase and resistance stays the same

(a) Resistance decreases (b) Current increases (c) Current remains the same

(d) Current decreases

608) The amount of work done in joules when one unit electric charges moves from one point to another point in an electric circuit is called.

(a) Resistance (b) Potential difference (c) Current (d) charge

609) The resistance of material depends on.

(a) Temperature (b) Length of conductor (c) Area of cross-section

(d) All the above

610) The relation between potential difference (V) and current (I) is:

(a) $V \alpha I$ (b) $V \alpha I^2$ (c) $V \alpha \frac{I}{I}$ (d) None of the above

611) The relation between potential difference (V) and current (I) was discovered by:

(a) Volt (b) Ohm (c) Newton (d) Ampere

612) Give the name of components which is designed to oppose the flow of current.

(a) Capacitor (b) Resistors (c) Fuse wire (d) Inductor

613) The resistance of a conductor directly proportional to

(a) Length (b) Area (c) Volt (d) Current

614) Which of the following laboratory apparatus is used during the verification of Ohm's law?

(a) Voltmeter (b) Ammeter (c) Rheostat (d) All the above

615) Kilowatt - hour is the unit of

(a) Power (b) Potential difference (c) Force (d) Electrical energy

616) If resistance decreases, then current will

(a) increase (b) double (c) decrease (d) constant

617) The resistance of a conductor is inversely proportional to its _____.

(a) Volt (b) Length (c) Area (d) None ofthe above

618) Why battery is used in the circuit?

(a) Measure Current (b) Maintain a potential difference (c) Oppose the current
(d) Measure potential

619) Conductance is expressed in terms of:

(a) mho (b) ohm/m (c) ohm (d) mho/m

620) What happens when ammeter connected in parallel?

(a) Open circuited (b) Closed Circuited (c) Short circuited (d) None of the above

621) If two unequal resistors connected in parallel then.

(a) The voltage is same in both resistor (b) The current is same in both resistor
(c) The voltage is larger in one of the resistor
(d) The current is large in one of the resistor

622) What does a switch do?

(a) Oppose the current (b) Open and close the circuit (c) Provide current
(d) Store the energy

623) If there are two bulbs i.e 150W bulb and 60W bulb so which has more resistance?

(a) 60 W (b) 150 W (c) Both a and b (d) None of the above

624) If resistance of a wire is r ohms and wire is stretched to double its length, then what is its resistance?

(a) r (b) 2r (c) 4r (d) r/2

625) In parallel combination, resistance decrease due to increase in

(a) Area of cross section (b) Voltage (c) Length (d) Current

626) The device which easily doses or opens an electric circuit is called as:

(a) Switch (b) Cell (c) Key (d) Bulb

627) A small wire presents inside the bulb is called

(a) Conductor (b) Filament (c) Insulator (d) None of the above

628) If one of the resistors in a parallel circuit is removed, the total resistance will be

(a) Doubled (b) Decreases (c) Increases (d) Constant

629) All good conductors have high

(a) Resistance (b) Specific resistance (c) Voltage (d) None of the above

630) A short circuit has

(a) Non resistance (b) No conductance (c) Low current (d) None of the above

631) What happens to current and resistance if the voltage is doubled?

(a) Current doubles and resistance doubles
(b) Current doubles and resistance is halved

(c) Current remains the same and resistance doubles

(d) Current doubles and resistance remains the same

632) If the resistance in a series circuit doubles, total current will be

(a) doubles (b) halved (c) same (d) Increases

633) Which is considered to be the common reference for a parallel circuit?

(a) Current (b) Resistance (c) Power (d) Voltage

634) Why are copper wires used as connecting wires?

(a) Low resistivity (b) Low conductivit (c) High Resistivity (d) Both A and B

635) Direction of conventional current is from:

(a) Negative terminal to positive terminal (b) In both the directions

(c) Positive terminal to negative terminal (d) None of the above

636) Conductivity is the _____ of resistivity.

(a) opposite (b) reciprocal (c) equal (d) none of the above

637) 1 Ampere is given as.

(a) 1C x 1s (b) 1C / 1s (c) 1S / 1C (d) None of the above

638) Which of following relation is correct for voltage, work done and charge?

(a) V = W x Q (b) W = V x Q (c) V = Q 1W (d) W = V / Q

639) A complete electric circuit is called as

(a) Open (b) Short (c) Closed (d) Complete

640) How many terminals an electric bulb consist of?

(a) 2 (b) 4 (c) 3 (d) 1

641) Fuse wire

(a) low melting point (b) has high resistance (c) has low resistance

(d) both (a) & (b)

642) Which of the following produces large joule heating effect?

(a) 1A current through 2Ω resister for 3 seconds

(b) 1A current through 3Ω resistor for 2 seconds

(c) 2A current through 1Ω resistor for 2 seconds

(d) 3A current through 1Ω resistor for 1 second

643) The heat produced in time is

(a) $H = \frac{V}{It}$ (b) $\frac{t}{VI} = H$ (c) H=VIt (d) $H = \frac{I}{Vt}$

644) The expression for the heat is

(a) H = VIt (b) $H = I^2Rt$ (c) $H = \frac{V^2}{R}t$ (d) all the above

645) According to Joule's heating effect, the law of current is

(a) $1 \propto H^2$ (b) $H \propto I^2$ (c) $H \propto I$ (d) both (b) and (c)

646) Electric iron box and electric heater works on the principle of

(a) heating effect of current (b) heating effect of voltage (c) heating effect of power

(d) heating effect of emf

647) A heating element used in the electric iron box and the electric heater is

(a) Tungsten (b) Nichrome (c) Lead (d) All the above

648) In which one of the following heating effect the current is undesirable?

(a) electric iron (b) electric motor (c) fuse wire (d) electric bulb

649) Choose the correct statement

(a) Nichrome has low resistance and high melting point

(b) Fuse wire has high resistance and low melting point

(c) Nichrome has high resistance and low melting point

(d) Fuse wire has low resistance and high melting point

650) A 110 W, 220 V bulb draws a current.

(a) 2 A (b) 440 A (c) 0.5 A (d) 5.5 A

651) A bird sitting on an uninsulated wire carrying a current feels quite safe because

(a) the bird is non-conductor of electricity (b) resistance of the bird is very large

(c) there is a large potential difference between bird and wire

(d) there is no potential difference between bird and wire

652) The number of electrons in one coulomb of charge is

(a) 1.6×10^{19} (b) 6.25×10^{18} (c) 1.13×10^{11} (d) 8.85×10^{12}

653) A complete electric circuit is called_____ circuit.

(a) open (b) closed (c) complete (d) none of these

654) The electric current in a closed circuit always flows from the _____ terminal of the electric cell to _____ terminal.

(a) -ve to +ve (b) +ve to -ve (c) +ve to +ve (d) none

655) Which options show the correct direction of current?

(a) 

(b) 

(c) 

(d) 

656) Choose the incorrect statement:

(a) A switch is the source of electric current in a circuit.

(b) A switch help to complete or break the circuit.

(c) A switch help us to use electricity as per requirement

(d) When the switch is open there is an air gap between its terminals

657) In the following arrangement, the bulb will not glow of the ends A & B are connected with

(a) steel spoon (b) metal clip (c) plastic clip (d) copper wire

658) _____deals with the flow of electric charges through a conductor.

(a) Electricity (b) Sound (c) nuclear power (d) atomic physics

659) The motion of electric charges through a conductor will constitute an _____

(a) Electric current (b) Electric circuit (c) electric potential (d) electric flux

660) Electric current passes from a region of_____pressure to a region of_____ pressure.

(a) Low, High (b) High, Low (c) either a or b (d) none

661) In Electric current passes from the _____terminal of a battery to the terminal_____ through a wire.

(a) Positive, Negative (b) Negative, Positive (c) either a or b (d) none

662) Electric current is the rate of flow of _____in a conductor.

(a) Electrons (b) Charges (c) Protons (d) All

663) SI unit of Electric Current is _____

(a) Ampere (b) Volt (c) Watt (d) Ohm

664) 1 Ampere =

(a) $\frac{1\ coulomb}{1\ minute}$ (b) $\frac{1\ coulomb}{1\ second}$ (c) $\frac{1\ \text{coulomb}}{1\ \text{second}^{\,2}}$ (d) $\frac{second}{coulomb}$

665) An electric circuit is a _____ circuit

(a) Closed (b) open (c) Either a or b (d) none

666) Device used to fix the magnitude of the current through a circuit _____

(a) Resistor (b) Ammeter (c) Voltmeter (d) Galvanometer

667) Device used to select the magnitude of the current through a circuit _____

(a) Resistor (b) Ammeter (c) Rheostat (d) Galvanometer

668) _____is used to measure the current.

(a) Resistor (b) Ammeter (c) Rheostat (d) Galvanometer

669) _____is used to measure the potential difference.

(a) Resistor (b) Ammeter (c) Voltmeter (d) Galvanometer

670) _____is used to indicate the direction of Current.

(a) Resistor (b) Ammeter (c) voltmeter (d) Galvanometer

671) In the circuit, if the switch is _____the bulb glows.

(a) On (b) Off (c) open (d) none

672) In the circuit, If the switch is _____the bulb does not glow.

(a) On (b) Off (c) open (d) closed

673) The _____ required for the flow of charges is provided by the battery.

(a) Potential difference (b) electric potential (c) electrical current (d) none

674) The _____ flow from the negative terminal to the positive terminal of the battery.

(a) Electrons (b) Neutrons (c) protons (d) positrons

675) By convention, the direction of current is taken as the direction of flow of _____ charge.

(a) Protons (b) neutrons (c) electrons (d) positrons

676) By convention, the direction of current is taken as the direction of flow of _____

(a) Protons (b) Electrons (c) a or b (d) none

677) _____ is defined as the amount of work done in moving a unit positive charge from one point to another point the electric force.

(a) Electric potential difference (b) Potential energy (c) electric potential (d) none

678) Potential difference =

(a) Work done(w) / charge (Q) (b) charge (Q) / Work done (w)

(c) $Work^2$ / charge (Q) (d) charge (Q) / $(Work\ done)^2$

679) SI unit of electric potential difference is _____

(a) Ampere (b) Volt (c) ohm (d) ohm^{-m}

680) 1 volt =

(a) 1 joule / 1 coulomb (b) 1 coulomb / 1 joule (c) 1 watt / 1 col

(d) 1 col / 1 watt

681) _____established the ohm's law

(a) George simon Ohm (b) albert Einstein (c) Lenz (d) faraday

682) George simon ohm is a _____physicist.

(a) German (b) England (c) American (d) French

683) Relation between potential difference and currentis gives a_____ line.

(a) Straight (b) Curved (c) Either a or b (d) None

684) Ohm is represented by the symbol of _____

(a) Ω (b) ρ (c) $\mho$ (d) ϕ

685) 1 ohm =

(a) 1 volt / 1 ampere (b) 1 ampere / 1 volt (c) 1 joule / 1 ampere

(d) 1 ampere / 1 joule

686) Nichrome is a conductor with high resistivity equal to _____

(a) $1.5 \times 10^{-6} \Omega m$ (b) $15 \times 10^{-1} \Omega m$ (c) $15 \times 10^{-6} \Omega m$ (d) $1.5 \times 10^{+6} \Omega m$

687) The reciprocal of electrical resistivity of a material is called its _____

(a) Resistance (b) Electrical conductivity (c) conductance (d) none

688) Ohm^{-1} is also represented as _____

(a) Ohm (b) mho (c) ohm m (d) ohm m^{-1}

689) Unit of electrical conductivity is _____

(a) Ohm^{-1} $metre^{-2}$ (b) Ohm^{-1} $metre^{-2}$ (c) mho m (d) $mho^{-1}m$

690) Conductivity is _____for conductors than for insulators.

(a) More (b) less (c) Either a or b (d) none

691) A series circuit connects the components one after the other to form a _____

(a) Single loop (b) Double loop (c) bridge (d) Either a or b

692) The equivalent resistance in a series combination is _____ than the highest of the individual resisitances.

(a) Greater (b) lesser (c) Either a or b (d) none

693) A parallel circuit has _____ or more loops

(a) One (b) Two (c) either a or b (d) none

694) The wiring in a house consists of _____circuits.

(a) Series (b) Parallel (c) Either a or b (d) None

695) The equivalent resistance in a parallel combination is _____ than the lowest of the individual resistances.

(a) More (b) Less (c) Either a or b (d) None

696) Nichrome has _____

(a) High resistivity (b) High melting point (c) Not easily oxidized (d) All the above

697) The fuse wire is made up of a material whose melting point is relatively _____

(a) High (b) low (c) Either a or b (d) None

698) The filament is made up of a material whose melting point is _____

(a) High (b) Very High (c) low (d) Very low

699) _____ is the commonly used material to make the filaments in bulbs.

(a) Nichrome (b) Tungsten (c) Alnico (d) Fuse wire

700) Electric power is the product of _____and _____

(a) Electric potential and electric current

(b) Electric current and electric Potential difference

(c) Electric potential and resistance (d) Electric current and resistance

701) Horse power is equal to _____

(a) 456 watts (b) 746 watts (c) 675 watts (d) 786 watts

702) A larger unit of power, which is more commonly used is _____

(a) Kilowatt (b) Kilogram (c) watt (d) micro watt

703) 1KWh =_____

(a) 100 watt hour (b) 1000 watt hour (c) 1 watt hour (d) 10 watt hour

704) 1 KWh =_____

(a) 3.6×10^5 J (b) 3.6×10^6 J (c) 36×10^5 J (d) 3.6×10^7J

705) _____is used to protect the house hold electrical appliances from overloading due to excess current.

(a) MVB (b) MCB (c) fuse wire (d) Either b or c

706) An extra _____ LED is used to display a dot.

(a) 7th (b) 8th (c) 6th (d) 4th

707) LCD is _____

(a) Liquid crystal Display (b) Liquid cubical display (c) Either a or b (d) None

708) The rate of flow of electric charge in a conductor is

(a) electric current (b) electric potential (c) potential difference

(d) none of the above

709) The SI unit of potential is

(a) volt (b) ampere (c) joule (d) none

710) The number of the free electrons constitute one coulomb of charge is

(a) 6.25×10^{10} electrons (b) 100 electrons (c) 1000 electrons

(d) 6.25×10^{18} electrons

711) The potential difference across any of the electrical home appliance is

(a) 200 V (b) 220 V (c) 100 V (d) 140 V

712) When 2 V is the potential difference across a conductor, the current is 0.4 A, then the resistance is

(a) 5 Ω (b) 50 Ω (c) 0.8 Ω (d) 2 Ω

713) The SI unit of conductivity is

(a) ohm m (b) $ohm^{-1}\ m^{-1}$ (c) $ohm\ m^{-1}$ (d) ohm

714) A resistor of 18Ω is connected to a 9 V battery, the current in the circuit is

(a) 5 A (b) 50 A (c) 0.5 A (d) 1 A

715) The SI unit of power is

(a) watt (b) joule (c) ampere (d) volt

716) A fuse has

(a) high resistance and high melting point (b) high resistance and low melting point

(c) low resistance and low melting point (d) None of the above

717) Fuse wire is made up of _____.

(a) Alloy of lead and tin (b) Alloy of lead and copper (c) Alloy of tin and copper

(d) None of the above

718) Switch is always connected to

(a) neutral wire (b) live wire (c) earth wire (d) None of the above

719) 1 HP =

(a) 746 W (b) 0.746 W (c) 74.6W (d) 7.46 W

720) In series combination of resistances

(a) Potential difference is same across each resistance

(b) total resistance is reduced (c) current is same in each resistance

(d) all above are true

721) When a current I flows through a resistance R for time t, the electrical energy spent is

(a) IRt (b) I^2Rt (c) IR^2t (d) I^2R/t

722) In parallel combination of resistances

(a) potential difference is same across each resistance

(b) total resistance is increased (c) current is same in each resistance

(d) all above are true.

723) Which statement is true?

(a) Sound waves can propagate as longitudinal or transverse depending on the transmitting medium.

(b) Sound waves are transverse and they propagate perpendicular to the transmitting medium.

(c) Sound waves are longitudinal waves and they propagate parallel to the transmitting medium.

(d) Sound waves can propagate as longitudinal or transverse depending on the temperature.

724) The velocity of sound is affected by

(a) temperature (b) density (c) pressure (d) all the above

725) A sound wave passes through gold rod and comes into the surrounding air. What is the relation between original wavelength A and new wavelength λ'?

(a) λ=λ' (b) λ > λ' (c) λ< λ' (d) None of the above

726) At what velocity should a source of sound move towards a listener so that apparent frequency is twice the actual frequency?

(a) 165 m/s (b) 330 m/s (c) 660 m/s (d) 110 m/s

727) The region of a sound wave having low pressure is

(a) interference (b) refraction (c) rarefaction (d) compression

728) A car playing music at a frequency of 250 Hz moves at 20 m/s towards an observer that has frequency. What frequency the observer can hear when
(i) it approaches and
(ii) when it passes by?

(a) approaching: $250 \times \left(\frac{v+20}{v}\right)$; leaving: $250 \times \left(\frac{v-20}{v}\right)$

(b) approaching: $250 \times \left(\frac{v}{v+20}\right)$; leaving: $250 \times \left(\frac{v}{v-20}\right)$

(c) approaching: $250 \times \left(\frac{v-20}{v}\right)$; leaving: $250 \times \left(\frac{v+20}{v}\right)$

(d) approaching: $250 \times \left(\frac{v}{v-20}\right)$; leaving: $250 \times \left(\frac{v}{v+20}\right)$

729) Ultrasound waves compared to audible sound waves have.

(a) Lower frequency and Shorter wavelength

(b) Lower frequency and longer wavelength

(c) higher frequency and longer wavelength

(d) higher frequency and shorter wavelength

730) The speed of sound in air is 300 m/s. What is the frequency as heard by the human ear?

(a) 0.001 Hz (b) 1 Hz (c) 10,000 Hz (d) 1,00,000 Hz

731) Distance between two consecutive compressions is

(a) λ (b) $\lambda/2$ (c) $\lambda/4$ (d) 2λ

732) Earthquake produces _____.

(a) Ultrasound (b) Infrasound (c) audible sound (d) none

733) Infrasound can be heard or produced by

(a) dog (b) bat (c) rhinoceros (d) human beings

734) Before playing guitar, guitarist adjust the tension and pluck the string. By doing so, he is adjusting.

(a) intensity of sound only (b) amplitude (c) frequency (d) loudness of sound

735) The pitch of sound depends on

(a) frequency (b) amplitude (c) both (d) none

736) Sound waves in air are _____.

(a) Transverse (b) longitudinal (c) both a & b (d) none

737) Sound can travel in

(a) air (b) any material medium (c) vacuum (d) none

738) The region of increased pressure in a wave is called

(a) crest (b) through (c) compression (d) particle

739) Which voice is likely to have minute frequency?

(a) baby girl (b) boy (c) A man (d) A woman

740) What is the frequency range of audible sound?

(a) 20 Hz to 20 kHz (b) 1.5 Hz to 20 kHz (c) 10 Hz to 15 kHz (d) 20 Hz to 25 kHz

741) How long sound persists in our ears?

(a) $\frac{1}{10}$ of a second (b) $\frac{1}{9}$s (c) $\frac{1}{8}$s (d) $\frac{1}{7}$s

742) Sound travels with a speed of 330 ms^{-1}. What is the wavelength of sound whose frequency is 550 Hz?

(a) 0.6 m (b) 0.7 m (c) 0.4 m (d) 0.2 m

743) Sound travels with a velocity of _____ in dry air

(a) 332 ms^{-1} (b) 330 ms^{-1} (c) 331 ms^{-1} (d) 336 ms^{-1}

744) Dogs can receive sound upto _____ kHz.

(a) 20 (b) 25 (c) 10 (d) 15

745) Sound propagates maximum in

(a) gas (b) liquid (c) solid (d) all

746) Loudness of sound varies directly with vibrating body's

(a) intensity (b) amplitude (c) pitch (d) quality

747) Sound energy passing per second through a unit area held perpendicular is called.

(a) intensity (b) frequency (c) amplitude (d) quality

748) Bats deflect from the obstacles in their path by receiving the reflected _____ waves.

(a) radio (b) ultrasonic (c) electromagnetic (d) infrasonic

749) When sound travels through air, the air particles.

(a) do not vibrate (b) vibrate but not in any fixed direction

(c) vibrate perpendicular to the direction of wave propagation

(d) vibrate along the direction of wave propagation

750) Sound waves do not travel through.

(a) vaccum (b) solid (c) liquid (d) gases

751) The speed of sound in a medium depends upon

(a) frequency (b) amplitude (c) wavelength (d) properties of the medium

752) A source emits a frequency of 1 kHz is moving toward a rest listener with a speed of 0.9 V, where V is the speed of sound wave. The frequency heard by the listener is _____.

(a) 10 Hz (b) 0.1 Hz (c) 100 Hz (d) 10 kHz

753) What does it mean when a wave's amplitude increases?

(a) Its frequency also increases (b) It is moving in denser medium

(c) Its wavelength gets longer (d) It carries more energy

754) Doppler effect in sound is due to

(a) motion of source (b) motion of the observer

(c) relative motion of source and observer (d) none of these

755) _____ is a branch of physics that deals with production.

(a) Thermolysis (b) Acoustics (c) Nuclear physics (d) atomic physics

756) The vibrating bodies produce energy in the form of waves, which are nothing but _____.

(a) Sound waves (b) light waves (c) either a or b (d) none

757) Sound can propagate through a gaseous medium or a liquid medium or a_____ medium.

(a) Solid (b) solid and liquid (c) liquid and gas (d) all

758) Sound waves are _____ waves.

(a) Longitudinal waves (b) transverse waves (c) either a or b (d) none

759) A series of high and low pressure regions called _____ and _____.

(a) longitudinal, transverse (b) Compressions, refractions (c) either a or b

(d) none

760) Audible waves with a frequency ranging between _____ and _____.

(a) 20 Hz to 2000 Hz (b) 20 Hz to 20000Hz (c) 2 Hz to 20 Hz

(d) None of the above

761) _____ Waves are generated by vibrating bodies such as vocal cords, stretched strings etc

(a) Audible waves (b) infrasonic waves (c) Ultrasonic waves (d) a and b

762) _____ waves with a frequency below 20Hz that cannot be heard by the human ear.

(a) Audible waves (b) infrasonic waves (c) Ultrasonic waves (d) a and c

763) _____ Waves are produced during earth quake, ocean waves, sound produced by whales etc

(a) Audible waves (b) infrasonic waves (c) Ultrasonic waves (d) b and c

764) _____ are sound waves with a frequency greater than 20 kHz.

(a) Audible waves (b) infrasonic waves (c) infrasonic waves (d) a and c

765) Sound wavelength ranges from _____ to _____.

(a) 1.65 m to1.75 m (b) 1.65 cm to 1.65 m (c) 1.65 cm to1.75 cm

(d) 1.65 m to 1.72 m

766) Light wavelength ranges from _____ to _____.

(a) 4×10^{-6} m to 7×10^{-7} m (b) 4×10^{-7} m to 7×10^{-7} m

(c) 5×10^{-6} m to 7×10^{-7} m (d) none

767) Sound waves travels in air with a speed of about _____ m/s at NTP

(a) 320 m/s (b) 340 m/s (c) 350 m/s (d) 314 m/s

768) Light waves travel in air with a speed of _____.

(a) 3×10^{6} m/s (b) 3×10^{8} m/s (c) 3×10^{-4} m/s (d) 3×10^{5} m/s

769) SI unit of velocity is _____.

(a) m/s (b) m (c) ms (d) m^2

770) The velocity with which the particles of the medium vibrate in order to transfer the energy in the form of a Wave is called _____.

(a) Wave velocity (b) particle velocity (c) either a or b (d) none

771) The velocity with which the wave travels through the medium is called _____.

(a) Wave velocity (b) particle velocity (c) either a or b (d) none

772) The compression exerts a Force F on the rigid wall, In turn, the wall exerts an equal and opposite reaction _____ on the air molecules.

(a) R = F (b) R = -F (c) F = R (d) F = -R

773) _____ surfaces are used when it is required to focus the sound at particular point.

(a) Plane (b) Curved (c) parabolic (d) elliptical

774) _____ surface is used in designing whispering halls.

(a) Plane (b) curved (c) parabolic (d) elliptical

775) The persistence of hearing for human ears is _____ second.

(a) 0.1 m (b) 0.1 sec (c) 0.5 sec (d) 0.1 sec

776) The sound pulse emitted by the source travels a total distance of _____ while travelling from the source to the wall and then back to the receiver.

(a) 4d (b) 2d (c) 3d (d) 5d

777) An _____ wave is emitted by a source attached to a police car.

(a) Electromagnetic waves (b) radio waves (c) light waves (d) mechanical waves

778) _____ radio waves are sent, and the reflected waves are detected by the receiver of the station.

(a) RADAR (b) SONAR (c) either a or b (d) none

779) In _____ the speed of marine animals and submarines can be determined.

(a) RADAR (b) SONAR (c) either a or b (d) none

780) Sound can propagate

(a) only through solids (b) only through liquids (c) Only through gases

(d) Through any medium[solid,liquid,gases]

781) The speed of the sound waves

(a) depends on the properties of the medium

(b) does not depends on the properties of the medium

(c) may or may not depends on the properties of the medium (d) None of the above

782) Audible range of frequency is

(a) 20 Hz to 20000 Hz (b) below 20 Hz (c) greater than 20000 Hz

(d) None of the above

783) Sound waves with frequencies below 20 Hz are called as

(a) Audible waves (b) infrasonic waves (c) Ultrasonic waves

(d) None of the above

784) Sound waves with frequencies greater than 20 kHz are called as

(a) Audible waves (b) Infrasonic waves (c) Ultrasonic waves

(d) None of the above

785) Waves Produced by bats are

(a) Audible waves (b) Infrasonic waves (c) Ultrasonic waves

(d) None of the above

786) Which of these statements are true about sound waves?

(a) Medium is not required for the propagation (b) Sound waves are longitudinal

(c) Wavelength ranges from 4×10^{-7} m to 7×10^{-7} m.

(d) The speed of sound waves is 3×10^{8} m/s

787) The relation between V, λ, and n is given by

(a) $V = n\lambda$ (b) $n = V\lambda$ (c) $\lambda = nV$ (d) $V = \frac{n}{\lambda}$

788) Velocrty of sound is

(a) maximum in solids (b) maximum in liquids (c) maximum in gases

(d) equal in all the three media

789) If V_S, V_L, and V_G represent the velocity of sound in solids, liquids, and gases respectively, then which of the following is correct?

(a) $V_S > V_L > V_G$ (b) $V_S < V_L < V_G$ (c) $V_S = V_L = V_G$ (d) $V_S < V_L > V_G$

790) Velocity of sound in gas is

(a) inversely proportional to the density of the gas

(b) inversely proportional to the square root of the density of gas

(c) directly proportional to the density of the gases

(d) directly proportional to the square root of the density of the gas

791) Velocity of sound in a gas

(a) increase with the increase in temperature

(b) increase with decrease in temperature (c) does not depends on temperature

(d) None of the above

792) The persistance of hearing for human ear is

(a) 1 s (b) 10 s (c) 0.1 s (d) 0.01 s

793) The minimum distance required to hear an echo is

(a) 17.2 m (b) 16.2 m (c) 172 m (d) 1.72 m

794) To improve the quality of sound heard by the audience in an auditorium which of the following is used?

(a) ear trumpet (b) megaphone (c) soundboard (d) wall hangings

795) According to Doppler effect, when the source and the listener are moving towards each other, the apparent frequency is

(a) more than the actual frequency (b) less than the actual frequency

(c) equal to the actual frequency (d) more or less than the actual frequency

796) A radar sends a signal to an airplane at a distance of 45 km away with a speed of 3 x 10^8 ms-l. The time taken to receive the signal back from the airplane is

(a) 3 x 10^{-4} s (b) 3 x 10^4 s (c) 6 x 10^{-4} s (d) 6 x 10^4 s

797) Which of the following material is normally fissionable?

(a) U^{238} (b) Th^{232} (c) Pu^{240} (d) U^{235}

798) The control rod in a nuclear reactor is made of

(a) uranium (b) cadmium (c) graphite (d) plutonium

799) The explosion of the atomic bomb takes place due to

(a) Nuclear fission (b) Nuclear fusion (c) Scalteling (d) Heating

800) Energy generation in stars is due to

(a) chemical reaction (b) fission (c) fusion of light nuclei

(d) Fusion of heavy nuclei

801) Fusion reaction is initiated with the help of
(i) low temp
(ii) high temp
(iii) low press
(iv) high press

(a) (i) is correct (b) (ii) & (iv) are correct (c) (i) & (iv) are correct

(d) (ii) & (iv) are correct

802) Fusion reaction takes place at high temp.

(a) atoms are ionised (b) molecules break up (c) nuclei break up

(d) to overcome repulsion between nuclei

803) The main source of stellar energy is
(i) fission reactors
(ii) fusion reaction
(iii) chemical reaction
(iv) thermonuclear reactions

(a) (i) is correct (b) (i) & (ii) are correct (c) (i) & (iv) are correct
(d) (ii) & (iv) are correct

804) A chain reaction is continuous due to

(a) large mass defect (b) large energy (c) production of more neutrons in fission
(d) None of these

805) Atomic nucleus was discovered by _____

(a) Rutherford (b) Newton (c) Einstein (d) Nobel

806) Nucleons are made of _____.

(a) atoms (b) electrons and protons (c) electrons and neutrons
(d) protons and neutrons

807) Henry Becquerel discovered _____ in 1896

(a) nucleus (b) atom (c) isotopes (d) radioactivity

808) Elements having atomic number greater than _____ are radioactive.

(a) 48 (b) 68 (c) 88 (d) 83

809) Positively charged radioactive rays are called _____ rays.

(a) $\propto$ (b) β (c) γ (d) neutral

810) γ rays are _____ in charge.

(a) positive (b) negative (c) neutral (d) none

811) $\propto$- rays consist of a - particles, which are _____ nuclei.

(a) hydrogen (b) helium (c) heavy water (d) boron

812) Penetration power is the greatest in_____ rays

(a) alpha (b) beta (c) gamma (d) helium

813) _____ rays contain 1 - unit of negative charge.

(a) Alpha (b) Beta (c) Gamma (d) Hydrogen

814) β-rays are nothing but _____.

(a) protons (b) neutrons (c) electrons (d) helium

815) Gamma - rays are _____ in nature.

(a) gravitational (b) electromagnetic (c) weak (d) nuclear

816) ${}_4Be^9 + {}_2He^4 \rightarrow {}_6C^{12} + ?$

(a) electron (b) proton (c) neutron (d) hydrogen

817) Complete the reaction: ${}_{88}Ra^{226} \rightarrow {}_{86}Rn^{222} + ?$

(a) ${}_{-1}e^0$ (b) ${}_1e^o$ (c) ${}_2He^4$ (d) ${}_0n^1$

818) Complete the reaction: ${}_{90}Th^{234} \rightarrow {}_{91}Pa^{234} + ?$

(a) ${}_2He^4$ (b) ${}_{-1}e^0$ (c) ${}_1e^0$ (d) ${}_1n^0$

819) Gamma rays are extensively used to destroy _____ affected cells.

(a) Sickle - cell anaemia (b) Cancer (c) HIV (d) Polio virus

820) Irene Curie and F.Joliot discovered _____in the year 1934.

(a) natural radioactivity (b) fluorescence (c) artificial radioactivity

(d) hydrogen bomb

821) Which of the following is used to detect the presence of block in blood vessels.

(a) $_{15}P^{31}$ (b) $_{15}P^{32}$ (c) $_{26}Fe^{59}$ (d) $_{11}Na^{24}$

822) Radio _____ is used in the treatment of cancer.

(a) sodium (b) cobalt (c) iron (d) phosphorous

823) Radio_____is used to treat problems related to the thyroid gland.

(a) sodium (b) cobalt (c) iron (d) iodine

824) Radio _____ is used to locate brain tumors.

(a) iron (b) iodine (c) indium (d) cobalt

825) Radio _____ is used in the treatment of skin diseases

(a) iron (b) phosphorous (c) sodium (d) iodine

826) Radio - carbon dating can be done with _____.

(a) only living things (b) only non - living things (c) both (a) and (b) (d) none

827) Radio - carbon dating is used to _____

(a) treat diseases (b) increase agricultural yield (c) sterilize

(d) determine the age of a specimen

828) In molecular biology, radioisotope are used in _____ surgical instruments.

(a) engraving (b) sterilizing (c) sharpening (d) preserving

829) Roentgen (R) is the unit to measure _____.

(a) X - ray strength (b) number of holes produced by X - rays

(c) radiation exposure (d) number of cancer cells

830) If the exposure is about 100 R, it may causes _____.

(a) skin disorder (b) hair loss (c) leukemia (d) death

831) If the exposure is about 600 R, it causes _____.

(a) skin disorder (b) hair loss (c) teeth loss (d) death

832) _____ R is the safe limit of radiation exposure per week.

(a) 25 milli (b) 2.5 milli (c) 250 milli (d) 2500 mill

833) Radioactive materials are kept -in thick -walled _____ containers.

(a) aluminium (b) iron (c) brick (d) lead

834) Controlled chain reaction is seen in _____.

(a) atom bombs (b) nuclear reactors (c) synchrotron (d) detectors

835) In controlled chain reactions, the number of fission producing neutron is _____

(a) indefinite (b) finite and a variable (c) a constant (d) iodine

836) U^{238} kept in nuclear reactors, generally decay into _____.

(a) Np^{239} (b) PU^{239} (c) both (a) and (b) (d) U^{235}

837) Chain reaction is possible only when the loss of neutrons is _____ the neutrons produced.

(a) less than (b) greater than (c) equal to (d) independent of

838) Minimum size of a system in which at least 1 neutron is available for further fission is called_____.

(a) cut - off size (b) critical size (c) range of reactor (d) capability criteria

839) Chain reaction is possible, only if the size of system is _____ the critical size.

(a) less than (b) greater than (c) equal to (d) independent of

840) Natural uranium consists of _____ % of U^{235} and _____ % of U^{238}.

(a) 0.72,99.28 (b) 99.28,0.72 (c) 77.28,72 (d) 72, 77.28

841) U^{238} is fissionable _____ neutrons.

(a) only by fast (b) only by slow (c) both fast and slow (d) by thermal

842) _____ is fissionable by neutrons of all energies.

(a) U^{235} (b) U^{238} (c) U^{239} (d) Np^{239}

843) Atom bomb explosions produce _____ waves.

(a) gravitational (b) sand (c) shock (d) electric

844) The first nuclear reactor was built at _____.

(a) Newyork (b) San Fransisco (c) New Jersey (d) Chicago

845) In order to supply neutrons for research purpose, we use _____ reactors.

(a) research (b) power (c) production (d) source

846) For production of radio - isotopes, we use _____ reactions

(a) research (b) power (c) production (d) absorber

847) A good _____ shows down neutrons by elastic collisions and it does not remove them by absorption.

(a) fuel (b) moderator (c) coolant (d) control rod

848) Commonly used moderators are _____ and_____.

(a) D_2O, H_2O (b) D_2, H_2 (c) O_2, H_2 (d) O_2,N_2

849) Graphite is used as a _____ in nuclear reactors.

(a) moderator (b) coolant (c) detector (d) fuel

850) _____ are used to control the chain reaction.

(a) Control rods (b) Moderators (c) Coolants (d) Neutron source

851) The moderator used in nuclear reactor is

(a) Cadmium (b) Boron oxide (c) Heavy water (d) Uranium

852) Which of the following is not a moderator?

(a) liquid sodium (b) ordinary water (c) graphite (d) heavy water

853) The coolant used in fast breeder reactor is

(a) ordinary water (b) heavy water (c) liquid sodium (d) boron carbide

854) In nuclear reactors, _____ convert fast neutrons into slow neutrons.

(a) source (b) control rods (c) moderators (d) sink

855) In a nuclear reactor, cadmium rods are used to _____.

(a) speed up neutrons (b) slow down neutrons (c) absorb neutrons (d) remove heat

856) Mass of the fissile material at the critical size is called _____.

(a) Cut - off mass (b) Einstein's mass value (c) Curie mass (d) Critical mass

857) _____ prevents the leakage of neutrons by reflecting them back.

(a) Mirrors (b) Glass (c) Neutron reflectors (d) Coolant

858) BARC is situated at _____.

(a) Trombay (b) Kalpakkam (c) Trivandrum (d) Thumba

859) Reactor Kamini is situated at _____.

(a) Trombay (b) Kalpakkam (c) Thumba (d) Cochin

860) India's Nuclear Power Programme has _____ reactors in operation.

(a) 10 (b) 12 (c) 14 (d) 19

861) The explosion of hydrogen bomb is based on the principle of

(a) uncontrolled fission reaction (b) nuclear fusion reaction (c) controlled fission (d) photo electric effect

862) Order of temperature of fusion reaction is _____kelvin.

(a) 10^{17} (b) 10^{7} (c) 10^{10} (d) 10^{3}

863) The mass of the product nucleus is always _____ the sum of masses of the lighter nuclei.

(a) less than (b) greater than (c) equal to (d) the product of the product nucleus.

864) Matter is made up of tiny indestructible units called.

(a) Atoms (b) molecules (c) element (d) compound

865) _____ discovered cathode rays known as electrons.

(a) Democritus (b) JJ Thomson (c) Goldstein (d) milikan

866) _____ discovered positive rays which were named as protons.

(a) Democritus (b) JJ Thomson (c) Goldstein (d) milikan

867) _____ discovered charge less particles called Neutrons.

(a) JJ Thomson (b) Democritus (c) Goldstein (d) milikan

868) _____ explained that the mass of an atom is concentrated in its central part called nucleus.

(a) JJ Thomson (b) Democritus (c) Rutherford (d) milikan

869) _____ discovered that he could reproduce the effect whenever he placed uranium near a photographic film.

(a) JJ Thomson (b) Democritus (c) Henri Becquerel (d) Marie curie

870) _____ was identified to be a radioactive element.

(a) Thorium (b) Uranium (c) Polonium (d) radium

871) Henri Becqurrel is a _____ physicist.

(a) French (b) English (c) Italian (d) german

872) The elements whose atomic number is morethan _____ Undergo spontaneous radioactivity.

(a) 85 (b) 83 (c) 89 (d) 90

873) Technecium with atomic number _____.

(a) 40 (b) 43 (c) 67 (d) 50

874) Promethium with atomic number _____.

(a) 40 (b) 67 (c) 34 (d) 61

875) There have been _____ radioactive substances discovered so far. Most of them are rare earth metals and transition metals.

(a) 30 (b) 29 (c) 28 (d) 31

876) During such a disintegration, the nucleus which undergoes disintegration is called _____.

(a) parent nucleus (b) daughter nucleus (c) either a or b (d) none

877) _____ is a induced process.

(a) Natural radioactivity (b) Artificial radioactivity (c) either a or b (d) none

878) _____ rays electromagnetic waves consisting of photons.

(a) α rays (b) γ rays (c) cosmic rays (d) β rays

879) Decay of Uranium to thorium with the emission of an _____ particles.

(a) α (b) γ (c) cosmic (d) β

880) Fissile Materials are _____ and _____.

(a) Uranium-235 and Plutonium 239, 241 (b) Thorium 232, Uranium 238

(c) aluminium - 27 thorium 232 (d) non

881) Fertile materials are _____.

(a) Uranium-238 (b) Thorium-232 (c) Plutonium-240 (d) all the above

882) The energy released in a nuclear fission process is about _____ MeV.

(a) 200 (b) 300 (c) 250 (d) 350

883) _____ is based on the principle of nuclear fusion.

(a) Hydrogen Bomb (b) Atom bomb (c) nuclear reactor (d) none

884) _____ is used to diagnose anemia and also to provide treatment for the same.

(a) Radio-Iodine (b) Radio-iron (c) adio-sodium (d) all the above

885) _____ is a device used to detect the levels of exposure to an ionizing radiation.

(a) Dosimeter (b) pocket dosimeter (c) either a or b (d) none

886) Cathode rays contains

(a) proton (b) electron (c) netrtron (d) positron

887) Pitch blende is an ore of

(a) Uranium (b) Radium (c) Plutonium (d) Aluminum

888) ${}_4Be^9 + {}_2He^4 \rightarrow {}_6C^{12} + {}_0n^1$ Which is a projectile in the above equation?

(a) ${}_4Be^9$ (b) ${}_6C^{12}$ (c) ${}_0n^1$ (d) ${}_2He^4$

889) Arrange the following rays in ascending order according to the ionizing Power
i) Alpha
ii) Beta
iii) Gamma

(a) Gamma, Beta, Alpha (b) Alpha, Beta, Gamma (c) Gamma, Alpha, Beta

(d) Alpha, Gamma, Beta

890) Which of the following is the heaviest one?

(a) Hydrogen (b) Alpha (c) Beta (d) Gamma

891) New elements do not formed in

(a) Alpha decay (b) Beta decay (c) Gamma decay (d) All of these

892) Reason for nuclear fission to be a chain reaction is

(a) 200 MeV energy is produced (b) two smaller nuclei formed

(c) 2 or 3 neutrons are formed for further reaction (d) all of these

893) In a chain-reactions rate of, production of neutrons-must.be more than the rate of its loss is a

(a) Critical level (b) Supercritical level (c) Subcritical level (d) both (a) and (c)

894) eV is a unit of

(a) radioactivity (b) critical mass (c) energy released in nuclear fission

(d) radiation

895) Positrons are

(a) electron charge but proton mass (b) electron charge but neutron mass

(c) proton charge but neutron mass (d) proton charge but electron mass

896) Isotope of _____ element is used to age of old oil painting.

(a) Carbon (b) Californium (c) Americium (d) Phosphorous

897) The safe limit of receiving the radiation is about

(a) 1 R (b) 0.1 R (c) 100 R (d) 10 R

898) In a nuclear reactor, boron is used as

(a) fuel (b) moderator (c) control rod (d) protection wall

899) Nuclear reactor is used for

(a) to generate electricity (b) to produce radio isotopes

(c) to do research in nuclear physics (d) all the above

900) ${}_ZX^A$ is an atom that releases two alpha rays and followed by two beta rays, now the atomic number and mass number of the daughter nucleus.

(a) Z-8, A-8 (b) Z-4, A-8 (c) Z-2, A-8 (d) Z-4, A-6

901) How old is our Mother Earth? a. 45 crores 40 lakh years b. 40 crores 45 lakh years c. 42 crores 45 lakh years d. 40 crores 42 lakh years

(a) a. 45 crores 40 lakh years

902) The mass of an atom is measured in _____

(a) kg (b) amu (c) g (d) Pm

903) Atoms of different elements with different atomic numbers, but same mass number are known as _____

(a) isobars (b) isotopes (c) isotones (d) isomers

904) Pick out the isotopes among the following pairs

(a) $_6C^{13}$, $_7N^{14}$ (b) $_{18}Ar^4$, $_{20}Ca^4$ (c) $_6C^{12}$, C_6^{14} (d) $_5B^{12}$, $_6C^{13}$

905) Which among the following is a homo atomic molecule?

(a) N_2 (b) NH_3 (c) HCl (d) N_2O

906) Identify the 'hetero nuclear tri atomic molecule' among the following.

(a) P_4 (b) H_2SO_4 (c) CO_2 (d) O_3

907) Mass number is the

(a) Number of protons (b) Sum of protons and electrons (c) Number of neutrons
(d) Sum of protons and neutrons

908) Which of the following statement regarding an atom is always correct?

(a) An atom has equal number of electrons and protons
(b) An atom has equal number of electrons and neutrons
(c) An atom has equal number of electrons, protons and neutrons
(d) An atom has equal number of protons and neutrons

909) Atomicity of Chlorine and Neon is

(a) Mono atomic and mono atomic (b) Mono atomic and diatomic
(c) Diatomic and diatomic (d) Diatomic and mono atomic

910) Mass of an electron is

(a) 9.1083×10^{-31}kg (b) 9.1083×10^{-24}kg (c) 1.67262×10^{-27}kg
(d) 1.67×10^{-24}gm

911) Which of the following pairs are isotopes?

(a) Oxygen and ozone (b) Ice and water (c) NO and NO_2
(d) Hydrogen and deuterium

912) The atomic number of an element is 12 and its mass number is 24. The number of electrons, protons and neutrons respectively will be

(a) 12, 12, 24 (b) 24,12,12 (c) 12,12,12 (d) 12, 24,12

913) An atom which has a mass number of 14 and 8 neutrons is an

(a) isotope of nitrogen (b) isotope of oxygen (c) isotope of carbon
(d) isobar of carbon

914) Which of the following has an equal number of neutrons and protons?

(a) protium (b) deuterium (c) tritium (d) magnesium

915) An atom of an element has 13 electrons and mass number 27. The nucleus of this atom contains _____ neutrons.

(a) 26 (b) 13 (c) 14 (d) 27

916) The relative atomic masses of many elements are not whole number because

(a) they are not determined accurately (b) they exist as isotopes
(c) due to impurities (d) atoms ionize

917) The smallest particle of an element which involve in a chemical reaction is

(a) Atom (b) Molecule (c) Mole (d) Avogadro's molecule

918) $_{17}Cl^{35}$, $_{17}Cl^{37}$ form the pair of

(a) Isotope (b) Isonar (c) Isotone (d) Isomer

919) Isotones have equal number of

(a) Proton (b) Electron (c) Neutron (d) Atom

920) The atomicity of Chlorine is

(a) 1 (b) 4 (c) 8 (d) 2

921) Total number of atoms in 4g of oxygen molecule is

(a) 6.023×10^{23} (b) 7.52×10^{22} (c) 1.5055×10^{23} (d) 0.0752×10^{23}

922) Which of the following contains maximum number of molecules?

(a) 1 g of N_2 (b) 1 g of CO_2 (c) 1 g of H_2 (d) 1 g of O_2

923) What is the mass of 12.044×10^{23} number of O_2 molecules?

(a) 8 g (b) 16 g (c) 32 g (d) 64 g

924) The total number of electrons present in 16 g of methane gas is

(a) 96.352×10^{23} (b) 48.176×10^{23} (c) 6.023×10^{23} (d) 30.11×10^{23}

925) The number of atoms in 0.1 mole of a triatomic gas is

(a) 6.023×10^{22} (b) 1.806×10^{23} (c) 3.6×10^{23} (d) 1.8×10^{22}

926) The number of particles present in one mole of any substance is equal to

(a) 6.023×10^{23} (b) 60.23×10^{23} (c) 6.023×10^{27} (d) 60.23×10^{27}

927) Total number of atoms in 44 g of CO_2 is

(a) 6.023×10^{23} (b) 6.023×10^{24} (c) 1.806×10^{24} (d) 18.06×10^{22}

928) What mass of hydrogen and oxygen will be produced on complete electrolysis of 18 g of water

(a) 2 g hydrogen and 32 g oxygen (b) 2 g hydrogen and 16 g oxygen
(c) 4 g hydrogen and 32 g oxygen (d) 4 g hydrogen and 14 g oxygen

929) Which of the contains maximum number of molecules

(a) 1 g of CO_2 (b) 1g of N_2 (c) 1 g of H_2 (d) 1 g of CH_4

930) Which of the following correctly represent 360 g of water
(i) 2 moles of H_2O
(ii) 20 moles of water
(iii) 6.023×10^{23} molecules of water
(iv) 1.2046×10^{24} molecules of water

(a) (i) (b) (i) and (iv) (c) (ii) and (iii) (d) (ii) and (iv)

931) Which of the following has largest number of particles?

(a) 8g of CH_4 (b) 4.4g of CO_2 (c) 34.2g of $C_{12}H_{22}P_{11}$ (d) 2g of H_2

932) The number of molecules in 16.0 g of oxygen is:

(a) 6.023×10^{23} (b) 6.023×10^{-23} (c) 3.01×10^{-23} (d) 3.0115×10^{23}

933) The mass of sodium in 11.7 g of sodium chloride is:

(a) 2.3 g (b) 4.6 g (c) 6.9 g (d) 7.58 g

934) The formula of a chloride of a metal M is MCl_3 the formula of the phosphate of metal M will be:

(a) MPO_4 (b) M_2PO_4 (c) M_3PO_4 (d) $2\ (PO_4)_3$

935) Which of the following contains the largest number of molecules?

(a) 0.2 mol H_2 (b) 8.0 g H_2 (c) 17 g of H_2O (d) 6.0 g of CO_2

936) One gram of which of the following contains largest number of oxygen atoms?

(a) O (b) O_2 (c) O_3 (d) All contains same

937) One mole of a gas occupies a volume of 22.4 l. This is derived from:

(a) Berzelius's hypothesis (b) Gay- Lussac's law (c) Avogadro's law

(d) Dalton's law

938) The mass of one C atom is

(a) 6.023×10^{23}g (b) 1.99×10^{-23}g (c) 2.00 g (d) 12 g

939) A group of atoms chemically bonded together is a (an):

(a) Molecule (b) Atom (c) Salt (d) Element

940) Adding electrons to an atom will result in a (an):

(a) Molecule (b) Anion (c) Cation (d) Salt

941) The molecule formula P_2O_5 means that:

(a) A molecule contains 2 atoms of P and 5 atoms of O

(b) The ratio of the mass of P to the mass of O in the molecule is 2:5

(c) There are twice as many P atoms in the molecule as there are O atoms

(d) The ratio of the mass of P to the ass of O in the molecule is 5:2

942) The weight of a molecule of the compound $C_{60}H_{122}$ is:

(a) 1.4×10^{-21}g (b) 1.09×10^{-21}g (c) 5.025×10^{23}g (d) 16.023×10^{23}g

943) The total number of atoms represented by the compound $CuSO_4.\ 5H_2O$ is

(a) 27 (b) 21 (c) 5 (d) 8

944) The mass of a molecule of water is:

(a) 3×10^{-26}kg (b) 3×10^{-23}kg (c) 1.5×10^{-26}kg (d) 2.5×10^{-26}kg

945) Volume ofa gas at STP is 1.12×10^{-7} cc Calculate the number of molecules in it:

(a) 3.01×10^{20} (b) 3.01×10^{15} (c) 3.01×10^{23} (d) 3.01×10^{24}

946) The number of molecules of CO_2 present in 44 g of CO_2 is:

(a) 6.023×10^{23} (b) 3×10^{23} (c) 12×10^{23} (d) 3×10^{10}

947) The volume occupied by 4.4 g of CO_2 at STP is:

(a) 22.41 (b) 2.241 (c) 0.2241 (d) 0.11

948) How many molecules are present in one gram of hydrogen?

(a) 6.023×10^{23} (b) 3.0115×10^{23} (c) 2.5×10^{23} (d) 1.5×10^{23}

949) Which of the following is a diatomic molecule?

(a) CO (b) CO_2 (c) SO_3 (d) PO_4

950) Atomicity of Sulphur is

(a) 1 (b) 2 (c) 4 (d) 8

951) Which of the following has the highest number of molecule?

(a) 2g of H_2 (b) 34.2g of $C_{12}H_{22}O_{11}$ (c) 4.4g of CO_2 (d) Bg of SO_2

952) Isotopes have

(a) Same physical properties and different chemical properties

(b) Same chemical properties and different physical properties

(c) Same physical and chemical properties

(d) Different physical and chemical properties

953) The vapour density of the Helium gas is

(a) Equal to 1 (b) Less than 1 (c) Greater than 1 (d) 0

954) The gram molecular mass of CO_2 is

(a) 16g (b) 18g (c) 44g (d) 17g

955) 2 x Vapour Density is equal to

(a) Gram molecular weight (b) Relative molecular weight (c) Atomic weight

(d) Gram atomic weight

956) The isotope which cure anaemia

(a) Sodium - 24 (b) Iodine - 131 (c) Iron - 59 (d) Cobalt - 60

957) _____ is an alloy of mercury with another metal.

(a) oxide (b) Noble gas (c) Bauxite (d) Amalgam

958) Proton - Proton chain reaction is an example of

(a) Nuclear fission (b) β – decay (c) Nuclear fusion (d) α- decay

959) The isotope which cures anemia _____.

(a) Sodium - 24 (b) Iodine - 131 (c) Iron - 59 (d) Cobalt - 60

960) Proton - Proton chain reaction is an example of

(a) Nuclear fission (b) α– decay (c) Nuclear fusion (d) β- decay

961) _____is an alloy of mercury with another metal.

(a) oxide (b) Noble gas (c) Bauxite (d) Amalgam

962) The first scientific theory of the atom was proposed by

(a) John Dalton (b) J.J. Thomson (c) Ruther Ford (d) Neils Bohr

963) The atoms are having same atomic number but differ in their mass number is known as _____

(a) Isobars (b) Isotopes (c) Isotones (d) None

964) The atoms are having same mass number but differ in their atomic number is known as _____

(a) Isobars (b) Isotopes (c) Isotones (d) None

965) The atoms are having different atomic number, different mass number but it contains same number of neutrons are called as _____

(a) Isobars (b) Isotopes (c) Isotones (d) None

966) An Isotope of Carbon, which contains 6 protons and 6 neutrons.

(a) 6 protons 6 neutrons (b) 6 protons 7 neutrons (c) 6 protons 8 neutrons

(d) 8 protons 6 neutrons

967) If the molecule is made of similar kind of atoms. Then itis called _____

(a) Homo Atomic Molecule (b) Di Atomic Molecule (c) Hetero Atomic Molecule

(d) Poly Atomic Molecule

968) If a molecule contains more than three atoms, then it is called _____

(a) Homo Atomic Molecule (b) Di Atomic Molecule (c) Tri Atomic Molecule

(d) Poly Atomic Molecule

969) Gram Atomic Mass of Carbon = _____g.

(a) 16 (b) 12 (c) 10 (d) 8

970) Gram Molecular Mass of HCl is =_____g.

(a) 35.5g (b) 34.5g (c) 36.5g (d) 31.5g

971) The value of Avogadro number is _____

(a) 6.023×10^{23} (b) 6.023×10^{22} (c) 6.023×10^{21} (d) 6.023×10^{-21}

972) One litre is equal to _____

(a) 1 dm^2 (b) 1 dm^3 (c) 1 cm^2 (d) 1 mm^2

973) Gram molar volume of gas at STP is _____

(a) 22.4 lit (b) 22.5 lit (c) 224 lit (d) none

974) Gram molecular mass of Water _____g.

(a) 18 (b) 16 (c) 15 (d) 1.8

975) Vapour density =

(a) RMM x 2 (b) RMM / 2 (c) RAM x 2 (d) RMM / 2

976) Gram atomic mass of Hydrogen _____g.

(a) 2 (b) 1 (c) 3 (d) 4

977) Gram atomic mass of Nitrogen _____g.

(a) 12 (b) 14 (c) 28 (d) 20

978) Atomic mass of Hydrogen is _____ amu

(a) 1.008 (b) 1.006 (c) 1.005 (d) 1.004

979) Atomic mass of Helium is _____amu.

(a) 3.003 (b) 4.003 (c) 2.003 (d) 1.003

980) Atomic mass of Lithium is _____amu.

(a) 7.641 (b) 6.941 (c) 8.451 (d) 9.412

981) Atomic mass of Beryllium is _____amu.

(a) 9.012 (b) 8.012 (c) 7.012 (d) 6021

982) Example of Triatomic molecule is _____

(a) O_2 (b) O_3 (c) NH3 (d) none

983) Atoms of different elements have same number of neutrons are called as

(a) Isotones (b) Isotopes (c) Isobars (d) Isothermal

984) In Einstein mass energy equivalence $E = mc^2$, 'c' is

(a) Charge of the atom (b) Mass of carbon atom (c) Number of moles

(d) Velocity of light in Vaccum

985) The sum of the number of protons and neutrons of an atom is called its

(a) atomic number (b) mass number (c) relative atomic mass

(d) relative molecular mass

986) Relative atomic mass of magnesium is

(a) 6 (b) 12 (c) 48 (d) 24

987) Which of the following is not an isotope of oxygen?

(a) $_8O^{16}$ (b) $_8O^{17}$ (c) $_8O^{19}$ (d) $_8O^{18}$

988) Noble gases are

(a) Monoatomic molecule (b) Diatomic molecules (c) Triatomic molecules

(d) Polyatomic molecules

989) Atomicity of Ozone is

(a) 3 (b) 4 (c) 6 (d) 7

990) Mass of carbon -12 atom is

(a) 1 amu (b) 12 amu (c) 1/12 amu (d) none of these

991) 1 mole contains

(a) 6.023×10^{23} atom (b) 6.023×10^{23} molecules (c) 6.023×10^{23} ions

(d) Any of these

992) Mass percentage of carbon and oxygen in CO is

(a) 43 % and 57 % (b) 57 % and 43 % (c) 50 % and 50 % (d) 25 % and 75 %

993) Volume of 2 mole of hydrogen gas is

(a) 22.4 litre (b) 44.8 litre (c) 2 litre (d) 11.2 litre

994) Number of neutrons in $_{11}Na^{23}$ is

(a) 11 (b) 23 (c) 12 (d) 34

995) Which of the following is the pair of shortest and longest periods in the modern periodic table?

(a) 1^{st}, 2^{nd} (b) 2^{nd}, 3^{rd} (c) 5^{th}, 7^{th} (d) 1^{th}, 6^{th}

996) Pick the correct order on decreasing trend of atomic size

(a) Mg, Mg^+, Mg^{2+} (b) Mg^+, Mg^{2+}, Mg (c) Mg^{2+}, Mg^+, Mg (d) Mg^{2+}, Mg, Mg^+

997) Among the halogens which one is most electro-negative?

(a) Iodine (b) Chlorine (c) Bromine (d) Fluorine

998) The acid which makes iron passive is _____

(a) Conc.HCl (b) Cone.H_2SO_4 (c) Cone.HNO_3 (d) Cone.HF

999) The green layer found on the copper vessel is due to the formation of _____

(a) basic copper carbonate (b) cupric oxide (c) cuprous oxide (d) copper chloride

1000) The number of neutrons in $_8O^{16}$ is _____

(a) 8 (b) 16 (c) 32 (d) 24

1001) Modern periodic law is based on _____

(a) atomic mass (b) atomic number (c) number of neutrons (d) Both (a) and (b)

1002) The first period of the modern periodic table has _____ elements.

(a) 1 (b) 2 (c) 3 (d) 8

1003) The number of elements present in sixth period of modern periodic table is _____

(a) 8 (b) 18 (c) 16 (d) 32

1004) Pottassium belongs to _____ period

(a) First (b) Second (c) Third (d) Fourth

1005) Modern periodic table contains _____ groups.

(a) 9 (b) 32 (c) 18 (d) 64

1006) Noble gases belong to group _____

(a) 14 (b) 15 (c) 17 (d) 18

1007) Which among the following are periodic properties.

(a) Ionisation energy (b) atomic radius (c) eletronegativity (d) all the above

1008) The distance from the centre of the nucleus to the outer most electron in an ion is termed as _____ radii.

(a) atomic (b) ionic (c) Covalent (d) both (b) and (c)

1009) When an electron adds on to F atom, It becomes

(a) F^- (b) F^+ (c) F_2 (d) F^o

1010) Arrange the following in the increasing order of the size. Cl^-, Cl, Cl^+

(a) $Cl^- < Cl^+ < Cl$ (b) $Cl_4 < Cl^- < Cl^+$ (c) $Cl^+ < Cl < Cl^-$ (d) $Cl^+ < Cl < Cl^-$

1011) As the positive charge increases, the size of the cation _____

(a) decreases (b) increases (c) remains constant

(d) First increases and then decreases

1012) Electronegativity values are based on _____

(a) bond energy (b) electron affinity (c) ionisation energy (d) all the above

1013) Electronegativity values of Na and CI are 0.9 and 3.0 respectively predict the nature of bonding.

(a) Ionic (b) Covalent (c) Coordinate (d) Metallic

1014) The process of extracting the ore from the earth's crust is _____

(a) Metallurgy (b) Mining (c) Smelting (d) Leaching

1015) Slag is.

(a) Metal + Ore (b) Ore + Gangue (c) Flux + Gangue (d) Ore + Flux

1016) Metals are _____

(a) Electro positive (b) Electronegative (c) both (a) and (b) (d) neither (a) nor (b)

1017) Which among the following are the ores of aluminium?
(i) Bauxite
(ii) Cryolite
(iii) Corundum.

(a) Both (i) and (ii) (b) Only (c) Only (iii) (d) (i), (ii) and (iii)

1018) The process of extraction of aluminium from bauxite is called _____ process

(a) Hall's (b) Baeyer's (c) Smelting (d) Calcination

1019) The chemical formula of sodium meta aluminate is _____

(a) $NaAlO_2$ (b) Na_2AlO_2 (c) $NaAl_2O_2$ (d) $Na_2Al_2O_3$

1020) The chief ore of copper is _____

(a) Copper pyrites (b) Copper glance (c) Cyprite (d) Rupy copper

1021) Blister copper contains _____

(a) 50% pure copper (b) 99% pure copper and 1% impurities

(c) 98% pure copper and 2% impurities (d) 75% pure copper and 25% impurities

1022) The chemical symbol of Iron is _____

(a) I (b) Ir (c) FE (d) Fe

1023) The carbon content in wrought iron is _____

(a) 0.25 - 2% (b) 0.25 - 17% (c) 2 - 3.5% (d) 3 - 4.5%

1024) The physical and chemical properties of the elements are the periodic functions of their _____.

(a) Atomic numbers (b) Mass numbers (c) Atomic Mass (d) Molecular Mass

1025) Horizontal rows are called _____ and vertical columns are called _____.

(a) Periods and groups (b) Groups and Periods (c) either period or group

(d) neither period nor group

1026) First period contains _____ elements.

(a) 4 (b) 2 (c) 5 (d) 3

1027) Second period contains _____ elements.

(a) 5 (b) 4 (c) 8 (d) 10

1028) Third period contains _____ elements.

(a) 5 (b) 4 (c) 8 (d) 10

1029) Fourth and fifth period contains _____ elements.

(a) 15 (b) 16 (c) 18 (d) 20

1030) Fourth and fifth period called as_____ period.

(a) short (b) shortest (c) longer (d) longest

1031) Sixth period is the _____ period.

(a) short (b) shortest (c) longer (d) longest

1032) How many elements are present in 6^{th} and 7^{th} periods?

(a) 2 (b) 8 (c) 18 (d) 32

1033) First period is the _____ period.

(a) short (b) shortest (c) long (d) longest

1034) Second period is the _____ period.

(a) short (b) shortest (c) longer (d) longest

1035) Third periodis the_____ period.

(a) short (b) shortest (c) longer (d) longest

1036) Atomic number from 1 to 2 are called as _____.

(a) first (b) second (c) third (d) fourth

1037) Atomic number from 3 to 10 are called as _____.

(a) first (b) second (c) third (d) fourth

1038) Atomic number from 11 to 18 are called as _____.

(a) first (b) second (c) third (d) fourth

1039) Atomic number from 19 to 36 are called as _____.

(a) first (b) second (c) third (d) fifth

1040) Atomic number from 37 to 54 are called as _____.

(a) first (b) second (c) third (d) fifth

1041) Atomic number from 55 to 86 are called as _____.

(a) first (b) second (c) fifth (d) sixth

1042) Atomic number from 87 to 118 are called as _____.

(a) first (b) fifth (c) sixth (d) seventh

1043) The lanthanides and actinides which form part of Group 3 are called_____ elements

(a) S block (b) P block (c) Transition elements (d) Inner transition elements

1044) Group 18 called as _____.

(a) Alkali metals (b) Alkaline earth metals (c) Halogens (d) Noble gases

1045) Group 17 called as _____.

(a) Alkali metals (b) Alkaline earth metals (c) Halogens (d) Noble gases

1046) Group 16 called as _____.

(a) Alkali metals (b) Alkaline earth metals (c) Oxygen (or) Chalcogen family (d) Rare gases

1047) Oxygen family also called as _____.

(a) Nitrogen (b) Halogen (c) Chalcogen (d) Carbon

1048) 'S' block elements are otherwise known as _____.

(a) Alkali and alkaline earth metals (b) Representative elements (c) Transistion elements (d) Inner transistion elements

1049) 13^{th} Group is called as _____.

(a) Boron family (b) Carbon family (c) Nitrogen family (d) Oxygen family

1050) 14th Group is called as _____.

(a) Boron family (b) Carbon family (c) Nitrogen family (d) Oxygen family

1051) 3 to 12 groups are called as _____.

(a) S block elements (b) P block elements (c) Transistion elements

(d) Inner transistion elements

1052) 1st group is called as _____.

(a) Alkaline earth metals (b) Alkali metals (c) Earth metals (d) none

1053) 2nd group is called as _____.

(a) Alkaline earth metals (b) Alkali metals (c) Earth metals (d) all the above

1054) Along the period from left to right, the atomic radius of the elements _____ whereas along the groups from top to bottom the atomic radius _____.

(a) Decreases, Increases (b) Decreases, decreases (c) Increases, increases

(d) Increases, Decreases

1055) The shell number_____ the distance between the valence shell and nucleus _____.

(a) Increases, decreases (b) Decreases, decreases (c) Increases, increases

(d) Decreases, increases

1056) More and more positive charges impose a strong attraction over the electrons and thus the electron cloud shrinks towards the nucleus which results in the _____ in the atomic size.

(a) increases (b) decreases (c) increases and then decreases (d) none

1057) When a neutral atom loses an electron, it becomes a positively charged ion called _____.

(a) Cation (b) Anion (c) Neutral ion (d) all the above

1058) When a neutral atom gain an electron, it becomes a negatively charged ion called _____.

(a) Cation (b) Anion (c) Neutral ion (d) all the above

1059) Ionic radii also _____ along the period from left to right and _____down the group.

(a) Increases, decreases (b) Decreases, increases (c) Increases, increases

(d) Decreases, decreases

1060) Ionisation energy is otherwise called _____.

(a) Atomic energy (b) Ionisation energy (c) Ionisation enthalpy (d) Entropy

1061) Ionisation energy is measured in _____.

(a) KJ/mol (b) J/mol (c) K/mol (d) KgJ/mol

1062) Ionisation energy _____ along the period _____ down the group in the periodic table.

(a) Increases, decreases (b) Increases, increases (c) Decreases, decreases

(d) Decreases, increases

1063) As a positive charge _____ the size of the Cation.

(a) Increases, decreases (b) Increases, increases (c) Decreases, decreases
(d) Decreases, increases

1064) The negative charge _____ the size of the Anion _____.

(a) Increases, decreases (b) Increases, increases (c) Decreases, decreases
(d) Decreases, increases

1065) Electron affinity_____ from left to right in a period and _____ from top to bottom in a group.

(a) Increases, decreases (b) Decreases, decreases (c) Increases, increases
(d) Decreases, increases

1066) Electronegativity _____from left to right in a period and _____from top to bottom in a group.

(a) Increases, decreases (b) Increases, increases (c) Decreases, decreases
(d) Decreases, increases

1067) Oxide ores are purified by this method.

(a) Gravity separation method (b) Magnetic separation method
(c) Froth floatation method (d) Chemical method (or) leaching

1068) Tinstone - the ore of tin can be separated by this method.

(a) Gravity separation method (b) Magnetic separation method
(c) Froth floatation method (d) Chemical method

1069) Lighter ores such as sulphide ores are concentrated by the following method.

(a) Froth floatation method (b) Magnetic separation method
(c) Gravity separation method (d) Chemical method

1070) Chemical method is otherwise called as_____.

(a) Leaching (b) Reduction (c) a and b (d) b only

1071) Bauxite ore is purified by this method.

(a) Froth floatation method (b) Magnetic separation method (c) Chemical method
(d) Gravity separation method

1072) Aluminium melting point is _____.

(a) 520°C (b) 660°C (c) 620°C (d) 720°C

1073) _____is used in household utensils.

(a) Al (b) F3 (c) Cu (d) none

1074) Matte is a mixture of _____.

(a) $Cu_2S + FeS$ (b) $CuS + FeS$ (c) $Cu_2O + FeS$ (d) $CuO + FeS$

1075) Blister copper contains _____% of pure copper and _____% of impurities.

(a) 98%, 2% (b) 90%, 10% (c) 96%, 4% (d) 99%, 1%

1076) _____is a strong reducing agent.

(a) Iron (b) Aluminium (c) Copper (d) Hydrogen

1077) Copper is found in the _____ state as well as _____state.

(a) Native state (b) Combined state (c) Native and combined (d) none

1078) The concentrated ore is roasted in _____ of air.

(a) Roasted in excess of air (b) Roasted in less air (c) Roasted in absence of air (d) None

1079) In electrolytic refining, Copper metal acts as a _____.

(a) Cathode (b) Anode (c) electrode (d) none

1080) In electrolytic refining, Impure copper metal acts as a _____.

(a) Cathode (b) Anode (c) electrode (d) none

1081) Melting point of copper is _____.

(a) 760°C (b) 1356°C (c) 1280°C (d) 456°C

1082) The formula for malachite green is _____.

(a) $CuCO_3.Cu(OH)_2$ (b) $CuCO_3.Al(OH)_3$ (c) $CuCO_3.Fe_2O_3$ (d) $CuCO_3.Fe(OH)_3$

1083) _____is the first most abundant element in the earth crust.

(a) Oxygen (b) Aluminium (c) Silicon (d) 'a' only

1084) _____is the second most abundant element in the earth crust.

(a) Aluminium (b) Iron (c) Copper (d) None

1085) The chief ore of Iron is _____.

(a) Aluminium hydroxide (b) Ferric oxide (c) Ferrous oxide (d) Ferrous sulphide

1086) The other name of magnetic oxide is _____.

(a) Ferroso ferrous oxide (b) Ferroso ferric oxide (c) Ferric oxide.Ferrous oxide (d) 'a' and 'c'

1087) The chemical formula for the rust is _____.

(a) $Fe_2O_3.xH_2O$ (b) $Fe_2O_3.H_2O$ (c) $Fe_3O_4.H_2O$ (d) $FeO.H_2O$

1088) The charge consisting of roasted ore, coke and limestone in the ratio is _____.

(a) 5:4:1 (b) 8:4:1 (c) 5:6:2 (d) none

1089) Iron with 2 - 4.5% of carbon is called _____.

(a) Pig iron (b) Steel (c) Wrought iron (d) None

1090) Iron with < 0.25% of carbon is called _____.

(a) Pig iron (b) Steel (c) Wrought iron (d) None

1091) Iron with 0.25 - 2% of carbon is called_____.

(a) Pig iron (b) Steel (c) Wrought iron (d) None

1092) _____amalgam is used for dental filling.

(a) Ag-Sn (b) Hg-Sn (c) Hg -Ag (d) None

1093) Brass is a solid solution of _____ in copper.

(a) Magnesium (b) Zinc (c) Manganese (d) Aluminium

1094) Statues are made up of _____ Alloy.

(a) Cu, Sn (b) Cu, Zn (c) Al, mg, Mn (d) Al, mg

1095) Stainless steel is an alloy of _____.

(a) Aluminium (b) Iron (c) Copper (d) None

1096) Iron alloys are also called as _____.

(a) Ferrous alloys (b) Ferrous alloys (non) (c) Ferric alloys (d) Non Ferric alloys

1097) Aluminium alloys are also called as _____.

(a) Ferrous alloys (b) Ferrous alloys (non) (c) Ferric alloys (d) Non Ferric alloys

1098) Rust is chemically known as _____.

(a) hydrated ferric oxide (b) hydrated ferrous oxide (c) hydrated cupric oxide (d) hydrated cuprus oxide

1099) _____is the process of coating Zinc on Iron sheets by using electric current.

(a) Galvanisation (b) Anodixing (c) Cathodic protection (d) Electroplating

1100) _____is used widely for anodizing process.

(a) Aluminium (b) Copper (c) Zinc (d) Iron

1101) An alloy is a _____ mixture of two or more metals.

(a) Homogeneous (b) Heterogeneous (c) Both (d) none

1102) The atomic mass of inert gas Argon is _____ amu.

(a) 39.10 (b) 39.95 (c) 39.98 (d) 35.45

1103) The vertical columns in the periodic table starting from the top to bottom are called _____

(a) groups (b) periods (c) levels (d) families

1104) The rocky impurity associated with an ore is called _____

(a) mining (b) matrix (c) flux (d) slag

1105) Fluorspar is a _____ ore.

(a) oxide (b) carbonate (c) Halide (d) sulphide

1106) _____ is a chemical formula of cuprite.

(a) $CaCO_3$ (b) caF_2 (c) PbS (d) Cu_2O

1107) The_____ is a less reactive metals.

(a) mercury (b) sodium (c) Aluminum (d) Calcium

1108) Metals are usually malleable except _____

(a) sodium (b) Aluminium (c) mercury (d) gold

1109) The melting point of Aluminium is _____

(a) 660°C (b) 800°C (c) 150°C (d) 1370°C

1110) _____ is used in making aeroplanes and other industrial machine parts.

(a) copper (b) Iron (c) Silver (d) Aluminium

1111) When copper reacts with dil HNO_3 _____ gas is liberated.

(a) Nitric oxide (b) sulphur oxide (c) copper oxide (d) carbon di oxide

1112) An Amalgam is an alloy of _____ with another metal.

(a) metal (b) non metal (c) mercury (d) Gold

1113) _____ is used in making an electromagnets.

(a) pig iron (b) wrought iron (c) steel iron (d) none of these

1114) When fusing the metal by melting of zinc and copper _____ alloy is collected.

(a) brass (b) bronze (c) magnalium (d) duralumin

1115) _____ alloy is used to make propeller.

(a) Stainless steel (b) Duralumin (c) Nickel steel (d) Magnalium

1116) Sugar and copper sulphate crystals are dissolved in water. The solution is called as _____.

(a) binary (b) trinary (c) ternary (d) quartenary

1117) 40 g of sodium chloride in 100 g of water at 25^0 C forms _____ solution.

(a) Super saturated (b) Unsaturated (c) Saturated (d) Both (a) and (b)

1118) 8% of NaCI solution is

(a) 8g of NaCl in 100g of water (b) 8g of NaCl in 92g of water

(c) 92g of NaCl in 8g of water (d) 92g of NaCl in 100g of water

1119) White vitriol is _____

(a) $CaSO_4 \cdot 7H_2O$ (b) $MgSO_4.7H_2O$ (c) $K_2SO_4.7H_2O$ (d) $ZnSO_4.7H_2O$

1120) Anhydrous copper sulphate is _____ in colour.

(a) blue (b) bluish green (c) colourless (d) black

1121) Hygroscopic substances are used as _____ agents.

(a) oxidizing (b) reducing (c) decarbocyleting (d) drying

1122) Solubility of a solute is governed by

(a) nature of solute and solvent (b) temperature (c) pressure (d) all the above

1123) Under which of the following cases, dissolution of sugar will be rapid?

(a) Sugar crystal in hot water (b) Sugar crystal in cold water

(c) Powdered sugar in hot water (d) Powdered sugar in cold water

1124) A beaker contains a solution of copper sulphate. precipitation of copper sulphate takes place when small amount of it added to _____ solution.

(a) Saturated (b) Super saturated (c) Unsaturated (d) Concentrated

1125) Quick lime is dissolved in water is a _____ process.

(a) exothermic (b) endothermic (c) reversible (d) both (a) and (b)

1126) Example for solid in solid _____

(a) Soda water (b) Camphor in air (c) Charcoal (d) alloy

1127) In exothermic process as the temperature increases, solubility of the salt is _____

(a) decreases (b) increases (c) no change

(d) increase and then remains constant

1128) The solubility of gases in liquid increases with _____

(a) increased volume (b) increased pressure (c) decreased pressure
(d) none of these

1129) Salt solution containing common salt in water is an example for _____

(a) binary solution (b) trinary solution (c) suspension (d) colloidal solution

1130) Which is a non-aqueous solution?

(a) sugar in water (b) common salt in water (c) sulphur in carbon disulphide
(d) None

1131) Non-aqueous solvent is _____

(a) benzene (b) ether (c) CS_2 (d) All the above

1132) Which of the following is a saturated solution?

(a) 5g NaCI in 100g water (b) 10g NaCI in 100g water (c) 20g NaCI in 100g water
(d) 36g NaCI in 100g water

1133) In which of the following solutions, both solute and solvent are solids?

(a) cork (b) cheese (c) alloys (d) smoke

1134) An example for a solution containing liquid solute in gas solvent is _____

(a) soda water (b) cloud (c) cork (d) smoke

1135) Which of the following factors affect solubility?

(a) temperature (b) pressure (c) nature of solute and solvent (d) all the above

1136) Solubility of KNO_3 _____ with the increases in temperature.

(a) increases (b) decreases (c) remains constant (d) None of these

1137) Solubility of CaO _____ with the increases in temperature.

(a) increases (b) decreases (c) remains constant (d) None of these

1138) Solubility of CO_2 gas in water _____ with the increase in pressure.

(a) increases (b) decreases (c) remains constant (d) None of these

1139) Which of the following is a dehydrating agent (absorbs moistone)

(a) sodium hydroxide (b) anhydrous calcium chloride (c) sugar (d) None of these

1140) _____is a homogeneous mixture of two or more substances.

(a) solution (b) solute (c) solvent (d) colloid

1141) In a solution that component which is present in lesser amount by weight is called _____

(a) solution (b) solute (c) solvent (d) colloid

1142) In a solution the component which is present in higher amount by weight is called _____

(a) solution (b) solute (c) solvent (d) colloid

1143) The process of uniform distribution of solute into solvent is called _____

(a) solution (b) dissolution (c) coagulation (d) solvent

1144) Solution which are made of one solute and one solvent are called _____

(a) solutions (b) binary solutions (c) ternary solutions (d) tetranary solutions

1145) A solution contain more than two components are called _____

(a) solution (b) binary solution (c) ternary solution (d) tetranary solutions

1146) Give an example of solid- solid mixture _____

(a) Alloys (b) Amalgam (c) Nacl in water (d) None

1147) Give an example of liquid-solid mixture _____

(a) Alloys (b) Amalgam (c) Nacl in water (d) None

1148) Give an example of solid-liquid mixture_____

(a) Sodium chloride in water (b) ethyl alcohol in water (c) CO_2 dissolved in water (d) Methyl alcohol in water

1149) Give an example of liquid-liquid mixture is _____

(a) C_2H_2OH in water (b) NaCl in water (c) CO_2 in water (d) none

1150) Give an example of gas-liquid mixture is _____

(a) C_2H_2OH in water (b) NaCl in water (c) CO_2 in water (d) none

1151) Give an example of liquid- gas mixture is_____

(a) Water vapour in air (cloud) (b) Mixture of helium oxygen gas (c) CO_2 in water (d) NaCl in water

1152) Give an example of gas-gas mixture is_____

(a) Water vapour in air (b) CO_2 in water (c) Mixture of helium oxygen gas (d) NaCl in water

1153) _____ is called as universal solvent.

(a) Water (b) Acetone (c) Benzene (d) Ether

1154) The solvent in which water acts as a solvent is called _____

(a) aqueous solution (b) non-aqueous solution (c) either aor b (d) neither a nor b

1155) The solution in which any liquid other than water acts as a solvent is called _____

(a) aqueous solution (b) non-aqueous solution (c) either aor b (d) neither a nor b

1156) Give an example of non-aqueous solution _____.

(a) Water (b) Iodine dissolved in CCl_4 (c) either a or b (d) Neither a nor b

1157) Give an example of saturated solution _____

(a) 16g of NaCl in 100 g of water (b) 36g of NaCl in 100 g of water (c) 45g of NaCl in 100 g of water (d) Iodine dissolved in CCl_4

1158) Give an example of unsaturated solution _____

(a) 16g of NaCl in 100 g of water (b) 36g of NaCl in 100 g of water (c) 45g of NaCl in 100 g of water (d) 100 g of NaCl in 36 g of water

1159) example of super saturated solution _____

(a) 16g of NaCl in 100 g of water (b) 36g of NaCl in 100 g of water
(c) 45g of NaCl in 100 g of water (d) 100 g of NaCl in 16 g of water

1160) Example of super saturated solution _____

(a) 16g of NaCl in 100g of water (b) 36g of NaCl in 100g of water
(c) 45g of NaCl in 100g of water (d) 100g of NaCl in 16g of water

1161) Polar compound is _____

(a) Sodium chloride is dissolved in water (b) Fat dissolved in ether (c) either a or b
(d) neither a nor b

1162) Non-polar compounds are _____is non-polar solvents.

(a) soluble (b) insoluble (c) either a or b (d) neither a nor b

1163) In endothermic process, solubility increases with _____ in temperature.

(a) increases (b) decreases (c) either a or b (d) neither a nor b

1164) In exothermic process, solubility decreases with _____ is temperature.

(a) increases (b) decreases (c) either a or b (d) neither a nor b

1165) The pressure is increased, the solubility of a gas in liquid _____.

(a) increases (b) decreases (c) either a or b (d) neither a nor b

1166) Mass percentage is expressed as _____

(a) weight / weight (b) weight / mass (c) mass / weight (d) none

1167) Volume percentage is expressed as _____

(a) volume/ mass (b) volume / volume (c) mass / volume (d) mass / mass

1168) Volume percentage _____ with increases in temperature.

(a) decreases (b) increases (c) either a or b (d) neither a nor b

1169) The number of water molecules found in the crystalline substance is called _____

(a) hydrated salts (b) deliquiscent salts (c) collidal salts (d) suspension

1170) Copper sulphate penta hydrate $CuSO_4.5H_2O$ is_____

(a) blue vitriol (b) green vitriol (c) greenish blue vitriol (d) none

1171) Magnesium sulphate hepta hydrate $MgSO_4.7H_2O$ is _____

(a) blue vitriol (b) green vitriol (c) epsom salt (d) none

1172) Formula for Phosphorus pentoxide is _____

(a) F_2O_3 (b) P_2O_5 (c) $P_2H_4O_7$ (d) none

1173) Dehydrating agent is _____

(a) Anhydrous calcium chloride (b) Anhydrous potassium chloride
(c) hydrous calcium chloride (d) hydrous potassium chloride

1174) Formula for Silica gel is _____

(a) SiO_2 (b) SiO_3 (c) SiO_4 (d) SiO

1175) _____ is the human activity involved in the formation of solution with water.

(a) Dancing (b) Fighting (c) Cleaning (d) Laughing

1176) The _____ is a solvent.

(a) Aerated drinks (b) Fruit juice (c) Tea (d) water

1177) In a solution the component which is present in lesser amount is called _____

(a) Solute (b) Solvent (c) Mixture (d) Solution

1178) Cloud is the example of _____ binary solution.

(a) Gas - Gas (b) Liquid - Gas (c) Gas - Liquid (d) Liquid - liquid

1179) _____ is a solid - liquid binary solution.

(a) Aqueous solution of ethanol (b) Soda water (c) Salt water (d) Water vapour

1180) More amount of dissolved _____ is present in the water of cold regions.

(a) oxygen (b) carbon dioxide (c) sulphur (d) chlorine

1181) Green vitriol has _____ water molecules in it.

(a) Two (b) Five (c) Seven (d) Three

1182) Among the following _____ is a deliquescent substance.

(a) Quick lime (b) Caustic soda (c) Silica gel (d) Con. Sulphuric acid

1183) Which of the following information is not conveyed by a balanced chemical equation?

(a) Physical states of reactants and products

(b) Symbols and chemicals formula of reactants and products

(c) Number of atoms / molecules of the reactants and products formed

(d) Feasibility of a chemical reaction

1184) The product formed when calcium oxide reacts with water is

(a) Slaked lime (b) Carbon dioxide (c) Calcium oxide (d) Oxygen gas

1185) The reaction between hydrogen and oxygen gas to form water is _____ reaction.

(a) combination (b) redox (c) exothermic (d) all of these

1186) An element 'A' on exposure to moist air turns to form compound 'B' which is reddish brown. Identify 'A'.and 'B'

(a) 'A' is Ag, 'B' is Ag_{2s} (b) 'A' is Cu, 'B' is CuO (c) 'A' is Mg, 'B' is MgO

(d) 'A' is Fe, 'B' is Fe_2O_3

1187) 

The above thermal decomposition reaction is an _____ reaction.

(a) endothermic (b) exothermic (c) both (a) and (b) (d) neither (a) nor (b)

1188) Which among the following chemical reaction is an example of combination reaction?

(i) $H_{2(g)} + CI_{2(g)} \longrightarrow 2HCI_{(g)}$

(ii) $AnOH_{(aq)} + HCl_{(aq)} \longrightarrow NaCl_{(aq)} + H2O_{(1)}$

(iii) $2Mg(S) + O_{2(g)} \longrightarrow 2MgO_{(S)}$

(iv) $Zn(S) + 2HCI_{(aq)} \longrightarrow ZnCl_2 + H_{2(g)}$

(a) only (i) (b) both (i) and (iii) (c) only (iii) (d) both (i) and (ii)

1189) Match the list I with list II and select the correct answer using the code given below the lists.

LIST I	**LIST II**
A. Thermolysis	1. $2AgBr \longrightarrow 2Ag + Br$
B. Photolysis	2. $HNO_3 + NH_4OH \longrightarrow NH_4NO_3 + H_2O$
C. Electrolysis	3. $2HgO \longrightarrow 2Hg + O_2$
D. Neutralization	4. $2NaCl \longrightarrow 2Na + Cl_2$

(a)

	A	**B**	**C**	**D**
(a)	4	1	2	3

(b)

	A	**B**	**C**	**D**
(b)	2	4	1	3

(c)

	A	**B**	**C**	**D**
(c)	3	1	4	2

(d)

	A	**B**	**C**	**D**
(d)	4	3	2	1

1190) Pick out
Compound + element $\longrightarrow$ compound type of combination reaction

(a) $PCl_5 \longrightarrow PCl_3 + Cl_2$ (b) $Mg + O_2 \longrightarrow 2MgO$ (c) $PCl_3 + Cl_2 \longrightarrow PCl_5$
(d) $2Na + Cl_2 \longrightarrow 2NaCl$

1191) Formation of ammonia from nitrogen and hydrogen is an example of _____ reaction.

(a) Thermal decomposition (b) Combination (c) Precipitation (d) Displacement

1192) Decomposition reactions are brought about by _____

(a) heat (b) light (c) electricity (d) all the above

1193) When Zinc metal is placed in hydrochloric acid, the gas evolved is _____

(a) CO (b) CO_2 (c) H_2 (d) H_2O

1194) Pick out a chemical reaction which is not feasible

(a) $2NaCI \longrightarrow 2Na + Cl_2$ (b) $2NaCI + F \longrightarrow 2NaF + Cl_2$ (c) $2NaF + Cl_2 \longrightarrow 2NaCI + F$
(d) $NaOH + HCI \longrightarrow NaCl + H_2O$

1195) Pick out the metal that displaces hydrogen from hydrochloric acid.

(a) Zinc (b) Silver (c) Copper (d) Gold

1196) When a double displacement reaction takes place, one of the products must be

(a) Precipitate (b) Water (c) either (a) or (b) (d) neither (a) nor (b)

1197) $Pb(NO_3)_2 + 2KI \longrightarrow PbI_2 + 2KNO_3$ is a _____ reaction

(a) neutralization (b) Precipitation (c) decomposition (d) Combustion

1198) Heat is evolved during _____ reaction.

(a) Combination (b) Combustion (c) Decomposition (d) Endothermic

1199) Which among the following is not a balanced equation?

(a) $Fe + Cl_2 \longrightarrow FeCl_3$ (b) $Zn + S \rightarrow ZnS$ (c) $CaCO_3 \rightarrow CaO + CO$
(d) $Fe + CuSO_4 \longrightarrow FeSO_4 + Cu$

1200) Which among the following factors affect the rate of a reaction?

(a) Surface area of reactants (b) Pressure (c) Temperature (d) all the above

1201) The value of ionic product of water at 25°C is _____

(a) 1.00×10^{14} (b) 1.00×10^{-14} (c) 1.00×10^{4} (d) 1.00×10^{-4}

1202) Ionic product of water is expressed

(a) $K_w = [Hp^+] [OH^-]$ (b) $K_w = [H^+] [OH^-]$ (c) both (a) and (b) (d) neither (a) nor (b)

1203) Acids have pH

(a) less than 7 (b) greater than 7 (c) equal to 7 (d) less than 14

1204) Chemically rust is

(a) hydrated ferrous oxide (b) Ferrous oxide (c) hydrated ferric oxide
(d) Ferric oxide

1205) When copper sulphate is dissolved in water, the solution would be

(a) Colorless (b) Blue (c) Green (d) Brown

1206) Which of the following reactions is not feasible?

(a) $Zn + CuSO_4 \longrightarrow ZnSO_4 + Cu$ (b) $2Ag + Cu(NO_3)_2 \longrightarrow AgNO_3 + Cu$
(c) $Fe + CuSO_4 \longrightarrow FeSO_4 + Cu$ (d) $Mg + 2HCl \longrightarrow MgCl_2 + H_2$

1207) Copper displaces - metal from its solution.

(a) Zn (b) AI (c) Ag (d) all the above

1208) When Methane reacts with oxygen it forms _____.

(a) Carbon dioxide and water (b) Carbon monoxide and water
(c) Carbon and water (d) Carbon dioxide and hydrogen

1209) Combination reactions are otherwise called as _____.

(a) Precipitation reaction (b) Synthesis reaction
(c) Thermal decomposition reaction (d) Single displacement reaction

1210) Hydrogen gas combines with Chlorine gas to form _____gas.

(a) Hydrogen chloride gas (b) Hydrogen and chlorine (c) Hydrogen chloric acid
(d) Hydro chloric acid

1211) Element + Element — > _____.

(a) Element (b) Compound (c) element or compound (d) compound or element

1212) Compound + Compound — > _____.

(a) Element (b) Compound (c) element or compound (d) compound or element

1213) Compound + Element — > _____.

(a) Element (b) Compound (c) element or compound (d) compound or element

1214) A+B -— > AB.

(a) Decomposition reaction (b) Precipitation reaction
(c) Double decomposition reaction (d) None

1215) A solution of _____ is used for white washing walls.

(a) Calcium carbonate (b) Calcium hydroxide (c) Calcium chloride (d) None

1216) Other name for Calcium hydroxide is _____.

(a) Quick lime (b) Slaked lime (c) Soda water (d) None

1217) Chemical name for marble is _____.

(a) Calcium hydroxide (b) Calcium carbonate (c) Calcium oxide (d) None

1218) $Ca(OH)_2 + CO_2$ — > $CaCO_3 + H_2O$.

(a) Decomposition reaction (b) Combination reaction
(c) Double decomposition reaction (d) None of the above

1219) Thermal decomposition reaction is also called as _____.

(a) Exothermic reaction (b) Endothermic reaction (c) Entrophy
(d) None of the above

1220) Compound — > Element + Element. Example for this reaction is _____.

(a) Thermal decomposition (b) Photo decomposition (c) Electrolytic decomposition
(d) Thermal photo decomposition

1221) $Zn + HCl$ — > $ZnCl_2 + H_2$. This type of reaction is _____.

(a) Decomposition reaction (b) Combination reaction
(c) Displacement reaction (single) (d) Double displacement reaction

1222) $Fe + CuSO_4$ — $FeSO_4 + Cu$. This type of reaction is _____.

(a) Decomposition reaction (b) Combination reaction (c) Displacement reaction
(d) Double displacement reaction

1223) Fluorine is _____ reactive than Chorine.

(a) more (b) less (c) intermediate (d) none

1224) AB + CD — > AD + CB. This reaction is called as _____.

(a) Decomposition reaction (b) Combination reaction (c) Displacement reaction
(d) Double displacement reaction

1225) Doube displacement reaction is also called as _____.

(a) Thermolysis reaction (b) Metathesis reaction (c) Photolysis reaction (d) None

1226) Ions are exchanged in this reactions. What type of reaction takes place?

(a) Decompositon reaction (b) Combination reaction
(c) Double displacement reaction (d) Single displacement reaction

1227) Double decomposition reaction is otherwise called as _____.

(a) Combination reaction (b) Decomposition reaction (c) Precipitation reaction
(d) None

1228) $Pb(NO_3)_2 + 2KI$ — > $PbI_2 + KNO_3$. It is an example of _____ reaction.

(a) Combination reaction (b) Decomposition reaction (c) Precipitation reaction
(d) Displacement reaction

1229) Acid + Base — > Salt + Water.

(a) Decomposition reaction (b) Combination reaction (c) Neutralisation reaction
(d) None

1230) Combustion reactions otherwise called as _____.

(a) Decomposition reaction (b) Combination reaction (c) Neutralisation reaction
(d) Exothermic reaction

1231) Rusting of Iron is an example of _____ reaction.

(a) Exothermic oxidation (b) Endothermic reaction (c) Slow reaction
(d) Combination reaction

1232) Combustion reaction is also called as _____.

(a) Oxidation (b) Reduction (c) both 'a' and 'b' (d) none

1233) Hydrocarbons burns with Oxygen to form Carbon dioxide and water.

(a) Combintion reaction (b) Decomposition reaction (c) Combustion reaction

(d) None of the above

1234) Physical changes are called as _____.

(a) Reversible reaction (b) Irreversible reaction (c) Periodic (d) Non-periodic

1235) Our mobile phone gets energy from its Lithium ion battery by chemical reaction. What type of chemical reaction is takes place?

(a) Reversible (b) Irreversible (c) Discharging (d) None of the above

1236) AB < ——— > A + B, This type of chemical reaction is _____.

(a) Reversible (b) Irreversible (c) either a or b (d) None of the above

1237) The reaction that cannot be reversed is called _____ reaction.

(a) Reversible (b) Irreversible (c) either a or b (d) None of the above

1238) The Irreversible reactions are _____.

(a) directional (b) unidirectional (c) bydirectional (d) None of the above

1239) The Irreversible reaction always carried _____ reaction only.

(a) forward (b) backward (c) both (d) can't be specified

1240) The Reversible reaction always carried _____ reaction only.

(a) forward (b) backward (c) both (d) can't be specified

1241) Hydrogen peroxide is poured on a wound. It decomposes into _____ and _____.

(a) water and oxygen (b) water and oxides (c) hydrogen and oxygen

(d) none of the above

1242) Rusting of Iron is an example of _____ reaction.

(a) slow (b) fast (c) either a or b (d) neither a nor b

1243) Burning of petrol is an example of _____ reaction.

(a) slow (b) fast (c) intermediate (d) can't be specified

1244) Iron gets rusted faster in an acid than _____.

(a) water (b) bases (c) solvents (d) suspension

1245) Hydrochloric acidisa_____ than acetic acid.

(a) stronger (b) weaker (c) intermediate (d) same as

1246) Granulated Zinc reacts _____ with 2 M Hydrochloric acid than 1 M hydrochloric acid.

(a) faster (b) slower (c) intermediate (d) can't be specified

1247) In reactants are gases, the pressure is _____ the reaction rate is also _____.

(a) increases, increases (b) increases, decreases (c) decreases, decreases

(d) decreases, increases

1248) Powdering of the reactants _____ the surface area and more energy produced.

(a) increases (b) decreases (c) no change (d) can't be specified

1249) MnO_2 acts as a _____.

(a) Catalyst (b) Dehydrating agent (c) hydrating agent (d) solvent

1250) Surface area of the reactants increases the rate of the reaction also _____.

(a) increases (b) decreases (c) no change (d) can't be specified

1251) In equilibrium state _____.

(a) Rate of forward reaction = Rate of backward reaction

(b) Rate of backward reaction = Reat of forward reaction

(c) forward reaction = backward reaction (d) backward reaction = forward reaction

1252) The rate of the reaction is _____ proportional to the concentration.

(a) directly (b) indirectly (c) variably (d) invariably

1253) At this state, the volume of the liquid and gaseous phases remain constant. Since it is a physical change, the equilibrium attained is called _____ equilibrium.

(a) physical (b) chemical (c) mechanical (d) none

1254) Pure water is _____ of electricity.

(a) poor conductor (b) good conductor (c) either a or b (d) none

1255) _____ ionisation is a reaction in which two like molecules react to give ions.

(a) Self (b) Unautomatic (c) catalytic (d) none

1256) _____ formed is a strong acid and the _____ ion is a strong base.

(a) hydronium ion, hydroxyl ion (b) hydroxyl ion, hydronium ion (c) both a and b

(d) none

1257) The unit of ionic product of water is _____.

(a) mol^2dm^{-6} (b) mol^3dm^{-3} (c) $mol^{-2}dm^{-6}$ (d) mol^3dm^{-3}

1258) pH notation was devised by the _____ in 1909.

(a) Torrenson (b) Danish biochemist sorensen (c) Thales (d) Newton

1259) Acids have pH less than _____.

(a) 7 (b) 8 (c) 9 (d) 10

1260) Bases have pH greater than _____.

(a) 7 (b) 8 (c) 9 (d) 10

1261) A neutral solution has pH equal to_____.

(a) 7 (b) 8 (c) 9 (d) 10

1262) PH of rain water is _____.

(a) 7 (b) 8 (c) 9 (d) 10

1263) pH of blood is ranging _____.

(a) 7.35 to 7.45 (b) 7.45 to 7.55 (c) 7.25 to 7.35 (d) none

1264) The ideal pH for blood is _____.

(a) 7.4 (b) 7.3 (c) 7.5 (d) 7.2

1265) Rice requires _____ soil.

(a) Allealine soil (b) Acidic soil (c) Neutral soil (d) None

1266) Citrus fruits required slightly _____ soil.

(a) alkaline (b) acidic (c) neutral (d) None

1267) The pH of the mouth saliva falls below _____.

(a) 5.5 (b) 5.6 (c) 5.7 (d) 5.8

1268) The pH of the stomach fluid is approximately _____.

(a) 2.0 (b) 2.1 (c) 2.5 (d) 2.4

1269) In which acid is secreted in our stomach?

(a) Hydrochloric acid (b) Sulphuric acid (c) Nitric acid (d) Citric acid

1270) Toothpastes are generally _____.

(a) Acidic (b) basic (c) both (d) none

1271) The term pH means power of _____.

(a) Hydrogen (b) Hydroxyl (c) both (d) none

1272) Pure water is a _____ electrolyte.

(a) weak (b) strong (c) either a or b (d) neither a nor b

1273) _____ gives an insoluble salt as the product.

(a) decomposition (b) precipitation (c) either a or b (d) neither a nor b

1274) 4 NaCl + 2 Mg ⟶ _____.

(a) $MgCl_2$ + 4N (b) does not occur (c) $NaMgCl_2$ (d) $Na(MgCl)_2$

1275) Metal + Acid ⟶ Salt + _____.

(a) Oxygen (b) Water (c) Hydrogen (d) Carbon

1276) Copper is more reactive than _____.

(a) silver (b) gold (c) platinum (d) all of these

1277) If the concentration of reactants increases, the rate of reaction will

(a) increase (b) decrease (c) remains Same (d) initially decreases then increases

1278) In a solution $[OH^-]$ is 1×10^{-8} then the solution is

(a) Basic (b) Acidic (c) Neutral (d) None of these

1279) A substance which alters the rate of reaction without undergoing any change its mass and composition is known as

(a) Reactants (b) Products (c) Rate of reaction (d) Catalyst

1280) The pH is the _____ of the hydrogen ion concentration.

(a) logarithm (b) positive logarithm (c) negative logarithm

(d) division of logarithm

1281) The acid, helps in digestion of food in stomach is _____.

(a) H_2SO_4 (b) HNO_3 (c) HCI (d) H_3PO_4

1282) pH value for Antacids

(a) 4 - 5 (b) 6 - 8 (c) 10 (d) 11

1283) When Potassium Iodide reacts with lead nitrate, we get _____ as a yellow precipitation.

(a) Lead iodide (b) Potassium Nitrate (c) Potassium Iodide (d) Lead Nitrate

1284) Which among the following is / are the properties of organic compounds.
(i) are covalent in nature
(ii) exhibit isomerism
(iii) have low melting and boiling point

(a) (i) and (ii) (b) (i) and (iii) (c) (i), (ii) and (iii) (d) only (iii)

1285) Cyclobutane is an example of _____ compounds.

(a) a cyclic (b) cyclic (c) aromatic (d) alicyelic

1286) General molecular formula of alkynes is _____.

(a) CnH_{2n+2} (b) CnH_2n (c) CnH_{2-n-2} (d) $CnH2_{n+1}$

1287) Ethene is an _____

(a) alkane (b) alkene (c) alkyze (d) armatic hydrocarbon

1288) Methylene group is

(a) CH_4 (b) $- CH_3$ (c) $- CH_2 -$ (d) - CH -

1289) Identify the ketone among the following

(a) CH_3COCH_3 (b) CH_3CHO (c) CH_3COOH (d) CH_3COOCH_3

1290) The organic compound contains 2 carbon atoms, the root word according IUPAC is

(a) Meth - (b) Eth- (c) Prop - (d) But-

1291) According to IUPAC rules, the secondary suffix used to represent carboxylic acids is _____.

(a) al (b) ol (c) ate (d) oic

1292) The enzymes present in yeast is / are _____

(a) invertage (b) zymase (c) both (a) and (b) (d) neither (a) nor (b)

1293) Rectified spirit contains

(a) 95.5% of ethanol and 4.5% of water (b) 100% pure alcohol
(c) 4.5% of ethanol and 95.5% of water (d) 50% of ethanal and 50% of water

1294) Alcohols + Acids $\xrightarrow{\text{conc } H_2SO_4}$ Esters. This reaction is _____

(a) Ester hydrolysis (b) Esterification (c) Dehydrogenation (d) Oxidation

1295) When ethanol reacts with acidified $K_2Cr_2O_7$ the orange color of $K_2Cr_2O_7$ changes to _____

(a) yellow (b) red (c) purple (d) green

1296) Chemical formula of acetaldehyde is _____.

(a) CH_3CHO (b) CH_3CH_2OH (c) CH_3COOCH_3 (d) CH_3-O-CH_3

1297) Ethanolis used as _____

(a) a preservative for biological specimen (b) an antifreeze (c) an antiseptic
(d) all the above

1298) Ethanoic acid turns

(a) red litmus blue (b) blue litmus red (c) red litmus green (d) blue litmus green

1299) Hard water contains salts of _____

(a) Ca and Mg (b) Fe and Ca (c) Cu and Fe (d) Cu and Ca

1300) Identify the product formed when ethanol reacts with sodium

(a) Sodium acetate (b) Sodium ethanate (c) Sodium ethoxide (d) Sodium formate

1301) Which of the unique feature (s) of Carbon enables it to form a large number of compounds?

(a) catenation (b) covalency (c) tetra valency (d) both (a) and (c)

1302) All the members of homologous series have the same.

(a) molecular formula (b) physical Properties (c) general formula

(d) all the above

1303) What is the IUPAC name of $CH_3CH_2COCH_3$ -CH_3?

(a) 1- Pentanone (b) 2 - Pentanone (c) 3 - Pentanone (d) 4 - Pentaone

1304) Which of the following is formed when soap water acts on clothes to remove dirt or grease?

(a) acetic acid (b) Micelle (c) Ethyl alcohol (d) all the above

1305) Which one of the following changes blue litmus red?

(a) CH_3OH (b) CH_3COCH_3 (c) CH_3COOH (d) CH_3CHO

1306) Ethyl alcohol is mainly manufactured by

(a) destructive distillation of wood (b) fermentation of molasses

(c) dehydrogenation (d) Oxidation of ethane in the presence of $K_2Cr_2O_7/H^+$

1307) The organic acid present in Vinegar is _____ acid.

(a) methanoic (b) ethanoic (c) Propanoic (d) Butanoic

1308) The sodium salt of long chain fatty acid which helps in cleaning of clothes is _____

(a) vinegar (b) detergent (c) soap (d) both (b) and (c)

1309) All organic compounds are made up of _____bonds.

(a) Ionic (b) Covalent (c) Isomerism (d) None of the above

1310) _____are highly inflammable in nature.

(a) Organic compounds (b) Inorganic compounds (c) metalic compounds

(d) non metalic compounds

1311) Organic compounds are classified into _____ types.

(a) 2 (b) 3 (c) 4 (d) 5

1312) Carbon- carbon contain single bond means _____

(a) Alkane (b) Alkene (c) Alkyne (d) None

1313) Carbon - Carbon contain double bond (or) triple bond are called _____

(a) Alkane (b) Alkane (c) Alkyne (d) Alkene and Alkyne

1314) Organic compounds in which the chain of carbon atoms is closed or cyclic are called _____

(a) cyclic (b) carbocyclic (c) heterocyclic (d) none

1315) If the chain contains only carbon atoms, such compounds are called _____

(a) cyclic (b) carbocyclic (c) heterocyclic (d) none

1316) If the chain contains carbon and other atoms like oxygen, nitrogen sulphur, etc., these compounds are called _____

(a) cyclic (b) carbocyclic (c) heterocyclic (d) none

1317) Carbocyclic compounds are further subdivided into _____

(a) 2 (b) 3 (c) 4 (d) 5

1318) Ethane is a example of_____

(a) saturated (b) unsaturated (c) carbocyclic (d) alicyclic

1319) Ethene and Ethyne are an example of _____

(a) saturated (b) unsaturated (c) carbocyclic (d) alicyclic

1320) Pyridine and Furan is an example of _____

(a) alicyclic (b) aromatic (c) Heterocyclic (d) none

1321) Benzene is an example of _____

(a) alicyclic (b) aromatic carbocyclic (c) heterocyclic (d) none of the above

1322) Hydrocarbons are divided into_____ types.

(a) 2 (b) 3 (c) 4 (d) 5

1323) Emperical formula (or) General formula for alkane is _____

(a) CnH_{2n+2} (b) CnH_{2n} (c) CnH_{2n-2} (d) CnH_{2n+1}

1324) Emperical formula for alkene is _____

(a) CnH_{2n+2} (b) CnH_{2n} (c) CnH_{2n-2} (d) CnH_{2n+1}

1325) Emperical formula for alkyne is _____

(a) CnH_{2n+2} (b) CnH_{2n} (c) CnH_{2n-2} (d) CnH_{2n+1}

1326) Emperical formula for alkyl is _____

(a) CnH_{2n+2} (b) CnH_{2n} (c) CnH_{2n-2} (d) CnH_{2n+1}

1327) Alcohol is represented by _____

(a) R-OH (b) R-CHO (c) R-COOH (d) $\overset{O}{\underset{R-C-R^1}{\|}}$

1328) Aldehyde is represented by _____

(a) R-OH (b) R-CHO (c) R-COOH (d) $\overset{O}{\underset{R-C-R^1}{\|}}$

1329) Carboxylic acid is represented by _____

(a) R-OH (b) R-CHO (c) R-COOH (d) $\overset{O}{\underset{R-C-R^1}{\|}}$

1330) Ketone is represented by _____

(a) $R-\overset{\overset{O}{\|}}{C}-R^1$ (b) R-COO-R^1 (c) R-O-R (d) none

1331) Ester can be represented by _____.

(a) $R-\overset{\overset{O}{\|}}{C}-R^1$ (b) R-O-R^1 (c) R-COOR^1 (d) none

1332) Ether can be represented by _____.

(a) R-OH (b) R-O-R^1 (c) R-COOR^1 (d) R-COOH

1333) _____represents the nature in carbon to carbon bonding of the parent chain.

(a) Prefix (b) Suffix (c) Primary suffix (d) Secondary suffix

1334) _____describes the functional group of the compound.

(a) Prefix (b) Suffix (c) Primary suffix (d) Secondary suffix

1335) Ethanol is commonly known as _____

(a) Alcohol (b) Aldehyde (c) Ketone (d) Ether

1336) All alcoholic beverages are some cough syrups contain _____

(a) Alcohol (b) Aldehyde (c) Ketone (d) Ether

1337) Molasses contain about _____ of sucrose .

(a) 30% (b) 40% (c) 50% (d) 60%

1338) The fermented liquid is technically called _____

(a) wash (b) pure alcohol (c) absolute alochol (d) solution

1339) The fermented liquid containing _____ to _____ percent alcohol.

(a) 20 to 21 (b) 18 to 19 (c) 15 to 18 (d) none

1340) 95.5% of ethanol and 4.5% water is called _____

(a) Rectified spirit (b) Methylated spirit (c) Denatured spirit (d) none

1341) 95% of ethanol and 5% of methanol is called _____

(a) reftified spirit (b) methylated spirit (c) denatured spirit (d) none

1342) Ethanol mixed with Pyridine is called _____

(a) reftified spirit (b) methylated spirit (c) denatured spirit (d) none

1343) Mixture of petrol and ethanol is called _____

(a) reftified spirit (b) power alcohol (c) denatured spirit (d) none

1344) _____is a burning taste.

(a) Ethanol (b) Ethanal (c) Ethanoic acid (d) None

1345) Boiling point of Alcohol is _____

(a) 351K (b) 350K (c) 320K (d) 310K

1346) _____compounds gives fruit smell odour.

(a) Ethanol (b) Ether (c) Ester (d) Acids

1347) Ethanol is used as an_____

(a) Anaesthetic (b) Antiseptic (c) Anaesthetic and antiseptic d (d) None

1348) _____used as an antisepticto sterilize wounds in hospitals.

(a) Ethanal (b) Ethanol (c) Aldehyde (d) Acids

1349) The molecular formula for Acetic acid is _____

(a) $C_2H_4O_2$ (b) C_2H_6O (c) C_2H_4 (d) C_2H_6

1350) Removal of water is known as _____

(a) Dehydration (b) Dehydrogenation (c) Decarboxylation (d) Oxidation

1351) Removal of Hydrogen is known as _____

(a) Dehydration (b) Dehydrogenation (c) Decarboxylation (d) None

1352) Removal of CO_2 is known as _____

(a) Dehydration (b) Dehydrogenation (c) Decarboxylation (d) None of the above

1353) _____is used as a food additive, a flavoring agent and a preservative.

(a) Acetic acid (b) Propionic acid (c) Bytyric acid (d) Formic acid

1354) _____is used as a laboratory reagent.

(a) Ethanol (b) Ethanoic acid (c) Formic acid (d) Ethanal

1355) _____are stain remover.

(a) Hydrocarbons (b) Alcohols (c) Aldehydes (d) Ketones

1356) _____are Anaesthetic agents and pain killer.

(a) Alcohols (b) Aldehydes (c) Ketones (d) Ethers

1357) _____ is a sodium salt of sulphonic acids.

(a) Fatty acids (b) Detergent (c) Soap (d) Unsaturated compounds

1358) All carbon compounds are made of

(a) Atomic bonds (b) Co-ordinated bonds (c) Covalent bonds (d) Metallic bonds

1359) Volatile substance means

(a) high melting point (b) low melting point (c) easily evaporates (d) high density

1360) Benzene is a

(a) aromatic compounds (b) alicyclic compounds (c) number of moles
(d) acyclic compounds

1361) C_5H_8 is _____ classes

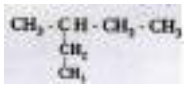
(a) Alkanes (b) Alkynes (c) Alkenes (d) saturated carbons

1362) Physical properties of a carbon compounds depends on

(a) functional group (b) alkyl group (c) oxygen presence (d) both a and b

1363) In a homogeneous series, each member has

(a) same functional group (b) same general molecular formula
(c) same physical properties (d) both a and b

1364)  IUPAC name of this compound

(a) 2 Ethyl pentane (b) 2 Ethyl butane (c) 3-methyl hexane (d) 2-methyl hexane

1365) The enzyme zymase converts _____ into _____

(a) molassess, sugar (b) sugar, fructose (c) sugar, glucose (d) fructose, ethanol

1366) Soda lime is a mixture of

(a) $NaOH, CaCl_2$ (b) $Ca(OH)_2, NaO$ (c) $CaO, NaOH$ (d) $CaO, Na(CH)_2$

1367) The substance sodium silicate is used to

(a) not damage the washing machine (b) glow clothes (c) remove blood strain (d) give fragrant smell

1368) A soap molecule contains two parts when dissolved in water, one is polar end other is

(a) carborylate group (b) hydrophilic end (c) hydrocarbon chain (d) water loving end

1369) _____ is used as pain killer.

(a) Aldehydes (b) Ethers (c) Esters (d) Ketones

1370) Exarch and tetrarch xylem are a feature of _____.

(a) dicot stem (b) dicot leaf (c) monocot root (d) dicot root

1371) Mitochondria was discovered by _____

(a) Sachs (b) Kelvin (c) Melvin (d) Kolliker

1372) Name the tissue present between the upper and lower epidermis.

(a) Lower epidermis tissue (b) Pith (c) Upper epidermis tissue (d) Mesophyll

1373) The inner mitochondrial membrane gives rise to finger like projections called _____

(a) oxysomes (b) matrix (c) cristae (d) stalk

1374) Leucoplasts are _____ plastids.

(a) colourless (b) yellow (c) orange (d) red

1375) The study of internal structure of plants _____

(a) Plant Physiology (b) Plant Anatomy (c) Taxonomy (d) Cytology

1376) In_____ vascular bundles, Xylem and phloem are present in different radii alternating with each other.

(a) Collateral (b) Bicollateral (c) Concentric (d) Radial

1377) The xylem is exarch and polyarchin _____

(a) Dicot stem (b) Dicot root (c) Monocot stem (d) Monocot root

1378) Conjunctive tissue in monocot root, is made up of _____

(a) Parenchyma (b) Collenchyma (c) Sclrenchyma (d) Xylem

1379) Root hairs are the unicellular out growths of _____

(a) Epiblema (b) Rhizodermis (c) Piliferous layer (d) All the above

1380) Vascular bundles are conjoint, collateral, endarch and open in _____

(a) Dicot stem (b) Dicot root (c) Monocot stem (d) Monocot root

1381) _____helps in the storage of food materials

(a) Epidermis (b) Chlorenchyma (c) Collenchyma (d) Pith

1382) Ground tissue is not differentiated into endodermis, cortex, pericycle and pith in _____

(a) Dicot stem (b) Dicot root (c) Monocot stem (d) Monocot root

1383) _____of dicot leaf takes part in photosynthesis

(a) Vascular bundle (b) Lower epidermis (c) Spongy Parenchyma (d) Palisade parenchyma

1384) Vascular bundles are conjoint, collateral and closed in _____

(a) Monocot and dicot stem (b) Monocot and dicot root (c) Monocot and dicot leaf (d) All the above

1385) Mesophyll is not differentiated into palisade and spongy parenchyma in _____

(a) Monocot leaf (b) Dicot leaf (c) Monocot and dicot leaf (d) None of the above

1386) Yellow, red, orange coloured plastids _____

(a) Leucoplast (b) Chloroplast (c) Chromoplast (d) None of the above

1387) Stroma contains _____ ribosomes for protein synthesis.

(a) 20 S (b) 30 S (c) 50 S (d) 70 S

1388) Thylakoids forms a stack of disc like structures called _____

(a) Stroma (b) Matrix (c) Granum (d) Lamellae

1389) During photosynthesis _____ is released as a byproduct.

(a) Oxygen (b) Carbon di oxide (c) ATP (d) ADP

1390) _____is the primary photosynthetic pigment

(a) Chlorophyll a (b) Chlorophyll b (c) Carotenoids (d) Xanthophylls

1391) The entire process of photosynthesis takes place inside the _____

(a) Chloroplast (b) Leucoplast (c) Chromoplast (d) Mitochondria

1392) Dark reaction or biosynthetic pathway is carried outin the _____

(a) Stroma (b) Oxysomes (c) Grana (d) Lamellae

1393) Light independent reaction is also called as _____

(a) Calvin cycle (b) Krebs cycle (c) Glycolysis (d) Hill reaction

1394) Glycolysis takes place in _____ of the cell.

(a) Chloroplast (b) Mitochondria (c) Cytoplasm (d) Ribosome

1395) _____is the ultimate electron acceptor in aerobic respiration.

(a) Oxygen (b) Hydrogen (c) Carbon di oxide (d) Water

1396) _____ is parenchymatous with profuse inter cellular spaces in monocot stem.

(a) Hypodermis (b) Ground tissue (c) Vascular bundle (d) Cortex

1397) Single layered without hair

(a) Endodermis (b) Epidermis (c) Hypodermis (d) Pericycle

1398) Bulliform or motor cells are Present on

(a) Root (b) Stem (c) Isobilateral leaf (d) Dorsiventral leaf

1399) Bulliform cells differ from other cells in being

(a) small and thick wall (b) small and thin walled (c) arge and thick walle
(d) large and thin walled

1400) Passage cells are Present in

(a) cortex (b) Pericycle (c) pith (d) endodermis

1401) Innermost layer of cortex is

(a) pericycle (b) endodermis (c) cortex (d) perisperm

1402) Starch sheath is

(a) endodermis of stem (b) outer cortex (c) inner cortex
(d) covering of vascular bundle

1403) Endodermis is not differentiated in

(a) monocot root (b) dicot root (c) monocot stem (d) dicot stem

1404) Open vascular bundles are those in which

(a) the protoxylem lies towards the pith (b) there is no cambium
(c) cambium is present between the xylem and phloem
(d) phloem is found on both outer and inner sides of the xylem

1405) Stele consists of

(a) Endodermis, pericycle, vascular bundle and pith
(b) pericycle, vascular bundle and pith (c) Vascular bundle and Pith
(d) Vascular bundles only

1406) Which of these characters does/do not apply to the vascular bundle of monocot stem?
I. Conjoint
II. Collateral
III. Open
IV. Endarch

(a) I and II only (b) II and III only (c) III and IV only (d) III only

1407) Epidermal hairs are not present in

(a) Monocot stem (b) Monocot root (c) Dicot stem (d) Dicot root

1408) Cell organelles responsible for preparation and storage of food

(a) Mitochondria (b) Plastids (c) Lysosomes (d) Ribosomes

1409) Fuel Produced by using the technology Artificial photosynthesis is

(a) Orygen (b) Nitrogen (c) Hydrogen (d) Methane

1410) Proteins which forms channel for the passage of molecules through the outer mitochondrial membrane is

(a) porin molecules (b) cristal (c) oxysomes (d) matrix

1411) The common step in both aerobic and anaerobic respiration is

(a) Krebs cycle (b) Electron Transport chain (c) Oxidation (d) Glycolysis

1412) The chemical pathway of photosynthesis was discovered by

(a) C.N. Rao (b) Melvin Calvin (c) Sachs (d) Robin Hill

1413) Power house of the cell is

(a) Mitochondria (b) Leucoplast (c) Chromoplast (d) Chloroplast

1414) The endarch condition is characteristic of

(a) root (b) stem (c) leaves (d) petiole

1415) Amphivasal bundle belongs to _____ type of vascular bundle.

(a) concentric (b) collateral (c) conjoint (d) radial

1416) The _____ is called starch sheath in a dicot stem.

(a) epidermis (b) pericycle (c) endodermis (d) hypodermis

1417) Protoxylem lacuna refers to a _____.

(a) thickening xylem (b) arrangement of (c) a cavity (d) exarch xylem

1418) _____ are racket shaped particles seen is inner mitochondrial membrane.

(a) Porin (b) ATP (c) Oxysome (d) Grana

1419) Respiratory quotient for aerobic respiration is _____.

(a) 2 (b) infinity (c) 1 (d) 0

1420) _____ is the outer most layer.

(a) Stomata (b) Epidermis (c) Periderm (d) Skin

1421) _____ helps in transpiration.

(a) Stomata (b) Epidermis (c) Trichomes (d) Root hairs

1422) _____ help in absorption of water and minerals.

(a) Root hairs (b) Stomata (c) Epidermis (d) Trichomes

1423) _____ is the outermost layer of the roo.

(a) Epiblema (b) Cortex (c) Endodermis (d) Stele

1424) Who discovered light dependent photosynthesis?

(a) Robin Hill (b) Nehemiah Grew (c) Kolliker (d) Melvin Calvin

1425) Mitochondria contain _____ of protein.

(a) 70 - 80 % (b) 80 - 90 % (c) 60- 70 % (d) 50 - 60 %

1426) Chloroplasts are _____ shaped organelles.

(a) disc (b) round (c) oval (d) circle

1427) Leeches have _____

(a) heart (b) lungs (c) true blood vessels (d) excretory organs

1428) In leeches there are _____pairs of nephridia.

(a) 18 (b) 15 (c) 17 (d) 12

1429) In leeches sperms are stored in

(a) epididymis (b) vas deferens (c) testis (d) ejaculatory duct

1430) The ovaries of leech lies in the _____segment.

(a) 10^{th} (b) 11^{th} (c) 13^{th} (d) 15^{th}

1431) The number of cranial and spinal nerves in rabbit are_____ respectively

(a) 11 and 36 (b) 12 and 37 (c) 12 and 36 (d) 10 and 37

1432) The urinogenital canal of female rabbit is formed by union of_____

(a) urethra and vagina (b) urinary bladder and urethra

(c) cowper's gland and urinary bladder (d) urinary bladder and vagina

1433) The_____ glands are modified glands of the skin

(a) perineal (b) mammary (c) gastric (d) salivary

1434) The opening of pulmonary arch into right ventricle of rabbit is guarded by_____ semilunar valves.

(a) 2 (b) 4 (c) 3 (d) 1

1435) Leeches may grow to a length of_____

(a) 35 cm (b) 45 cm (c) 25 cm (d) 20 cm

1436) Dental formula of rabbit is_____

(a) $\frac{2033}{1023}$ (b) $\frac{2003}{1003}$ (c) $\frac{2030}{1020}$ (d) $\frac{2023}{1220}$

1437) The_____ on both sides join to form the genital atrium in leech.

(a) ejaculatory ducts (b) epididymis (c) sperm Vesicle (d) vas efferens

1438) Each kidney is made up of several_____

(a) mascula (b) nephrons (c) cortex (d) epididymis

1439) PNSis formed of _____pairs of cranial nerves in Rabbit

(a) 10 (b) 12 (c) 14 (d) 16

1440) Egg cells of Rabbit are released in_____

(a) uterus (b) vagina (c) fallopian tube (d) ovary

1441) The third Ventricle in brain of Rabbit lives in_____

(a) cerebrum (b) cerebellum (c) diencephalon (d) medulla

1442) Metamerically segmented body is present in

(a) Earthworm (b) Leech (c) Nereis (d) All of the above

1443) Body is segmented in

(a) Coelenterate (b) Annelida (c) Porifera (d) Mollusca

1444) Botryoidal tissue is found in

(a) Rabbit (b) Ascaris (c) Leech (d) Earthworm

1445) Leech is

(a) Carnivorous (b) Sanguivorous (c) Ectoparasite (d) Both (b) and (c)

1446) The main function of clitellum is

(a) Coccon formation (b) Locomotion (c) Excretion (d) Copulation.

1447) A typical segment of leech is

(a) Triannulate (b) Biannulate (c) Quadriannulate (d) Quinquannulate

1448) Asuctorial mouth is present in:

(a) Tapeworm (b) Leech (c) Roundworm (d) Earthworm

1449) Suckers of leech are located at:

(a) Anterior and posterior ends of the body (b) Anterior end of the body

(c) Posterior end of the body (d) All over the body

1450) Which one of the following is present in saliva of leech:

(a) Hirudin (b) Hirudin (c) Heparin (d) Haemoglobin

1451) Leech secretes which of the following anticoagulant?

(a) Hirudin (b) Heparin (c) Serotonin (d) Histamine

1452) In leech, hirudin is secreted by:

(a) Crop (b) Pharynx (c) Haemocoel (d) Salivary glands

1453) Leech obtains continuous bloodstream from its victim by poring in it:

(a) Pepsin (b) Heparin (c) Insulin (d) Hirudin

1454) The botryoidal tissue of leech is a/an:

(a) Epithelial tissue (b) Mesodermal tissue (c) Connective tissue

(d) Mesenchymatic tissue

1455) 'Leeches' are included in class

(a) Oligochaete (b) Hirudinea (c) Polychaeta (d) Gastropoda

1456) A trait common in Leech and Mosquito is

(a) Anticoagulants (b) Abundant asexual reproduction

(c) Cellular level of organization (d) Absence of sexual phase

1457) What is true of Hirudinaria

(a) It has a cephalic sucker (b) Mouth is triradiate

(c) Segments are superficially subdivided (d) All the above

1458) Annelids are

(a) Flatworms (b) Roundworms (c) 6-legged invertebrates (d) Segmented worms

1459) On the dorsal side of the leech there are _____ pairs of eyes on the first five segments.

(a) 2 (b) 3 (c) 4 (d) 5

1460) Leech has _____ suckers.

(a) 1 (b) 2 (c) 3 (d) 6

1461) The posterior sucker is formed by the fusion of the last _____ segments.

(a) Four (b) Five (c) Six (d) Seven

1462) The anterior sucker helps in

(a) Attachment (b) Locomotion (c) Feeding (d) All the above

1463) In leech, attachment and locomotion are performed by

(a) Anterior sucker (b) Posterior sucker (c) Oral sucker (d) All the above

1464) The digested blood is then absorbed slowly by the _____.

(a) Intestine (b) Crop (c) Stomach (d) Pharynx

1465) In leech, fertilization is internal.

(a) External (b) External (c) External (d) None of the above

1466) The trunk of rabbit bears two pairs of _____ limbs.

(a) Tetradactyl (b) Pentadactyl (c) Hexadactyl (d) None of the above

1467) _____ is used to give signals to other rabbits in the event of danger.

(a) Pinnae (b) Limb (c) Tail (d) Mouth

1468) _____ teeth are absent rabbit.

(a) Canines (b) Molar (c) Premolar (d) Incisors

1469) Indian cattle leech are

(a) Ectoparasitic (b) Lives in fresh water (c) Sanguivorous (d) All of the above

1470) Leech has _____ pairs of eyes.

(a) two (b) three (c) four (d) five

1471) Male genital aperture in leech is present in _____ segment.

(a) 9^{th} (b) 10^{th} (c) 11^{th} (d) 12^{th}

1472) Female genital aperture in leech is present in _____ segment.

(a) 9^{th} (b) 10^{th} (c) 11^{th} (d) 12^{th}

1473) _____ is the largest portion of the alimentary canal in leech.

(a) Pharynx (b) Oesophagus (c) Crop (d) Stomach

1474) In leech, excretion takes place by _____.

(a) Kidney (b) Excretory tubes (c) Nephridia (d) Anus

1475) Leech has _____ pair of Nephridia.

(a) 10 (b) 12 (c) 17 (d) 20

1476) Leech is _____.

(a) Unisexual (b) Dioecious (c) Hermaphrodite (d) None of the above

1477) There are _____ pair of testes in leech.

(a) 2 (b) 8 (c) 11 (d) 13

1478) Biochemical substances hirudin derived from saliva of leech can be used to trent _____.

(a) Blood clots (b) Cardiovascular diseases (c) Hypertension (d) All the above

1479) Rabbit is a _____ animal.

(a) Acoelomate (b) Pseudocoelomate (c) Coelomate (d) None of the above

1480) A thin walled sac present at the junction of small intestine and large intestine of rabbit is _____.

(a) Oesophagus (b) Stomach (c) Rectum (d) Caecum

1481) The _____ prevents the entry of food into trachea.

(a) Glottis (b) Pharynx (c) Epiglothis (d) Larynx

1482) The heat of rabbit is _____ chambered.

(a) 2 (b) 3 (c) 31/2 (d) 4

1483) The common tube which is formed by the union of urinary bladder and the vagina is called _____.

(a) Uterus (b) Vestibule (c) Vulva (d) Urethra

1484) There are five pairs of eyes on the dorsal side of the first five segments

(a) Five pairs (b) Six pairs (c) Eight pairs (d) Nine pairs

1485) Anus is present in the _____segment.

(a) 42^{nd} (b) 32^{nd} (c) 26^{th} (d) 27^{th}

1486) There are _____pairs of nephridiopores.

(a) 23 (b) 32 (c) 17 (d) 48

1487) There is a female genital pore in the _____ segment.

(a) 11^{th} (b) 13^{th} (c) 12^{th} (d) 15^{th}

1488) Body wall of leech is divided into _____ layers.

(a) six (b) Five (c) Three (d) Two

1489) Crop is divided into _____ chambers.

(a) 10 (b) 12 (c) 9 (d) 8

1490) Respiration in leech takes place through _____

(a) Lungs (b) skin (c) Mouth (d) Nostrils

1491) There are _____ pairs of nephridia.

(a) 16 (b) 18 (c) 17 (d) 10

1492) Male reproductive system consists of _____ pairs of testes.

(a) 10 (b) 11 (c) 12 (d) one of the above

1493) Single pair of ovary is present in the _____ segment.

(a) 10^{th} (b) 12^{th} (c) 11^{th} (d) 9^{th}

1494) Heart of rabbit has _____ chambers.

(a) Four (b) Three (c) Two (d) One

1495) Excretion in rabbit is in the form of _____

(a) Ammonia (b) Urea (c) Uric acid (d) Amino acid

1496) Which is not a feature of Annelid?

(a) Metameric segmentation (b) Nephridia (c) Pseudocoelom (d) clitellum

1497) In rabbit _____ teeth are absent.

(a) molars (b) premolars (c) canines (d) incisors

1498) The shape of the wound in the skin of the host caused by leech is _____

(a) V (b) X (c) U (d) Y

1499) Annelids are

(a) Radially symmetrical (b) Externally segmented (c) Tiiploblastic (d) Pseudocoelomate

1500) Persons with _____ blood group can receive blood from 'AB' group individuals.

(a) 'A' only (b) B only (c) AB and O (d) A, B, AB and O

1501) The number of_____ increases during allergy.

(a) Basophil (b) RBC (c) Eosinophil (d) Monocyte

1502) The_____ are also called polymorpho nuclear leucocytes

(a) eosinophil (b) thrombocyte (c) neutrophil (d) lymphocyte

1503) The _____are the largest of leucocytes.

(a) neutrophil (b) monocyte (c) basophil (d) lymphocyte·

1504) The life span of platelets is_____

(a) 3 weeks (b) 1 month (c) 2-3 days (d) 40 days

1505) _____is not a feature of veins.

(a) Red in colour (b) Non-elastic walls (c) Lack internal valves

(d) Blood flow with low pressure

1506) Angiology is the study of_____

(a) heart (b) heart attack (c) blood vessels (d) diseases of blood

1507) Two chambered heart is seen in_____

(a) fish (b) amphibian (c) reptiles (d) mammals

1508) _____is not a feature of osmosis

(a) Semi permeable membrane (b) Movement of solvent (c) Both a and b

(d) Involves energy

1509) Absorption of water by modern frames of windows in rainy reason is an example of_____

(a) diffusion (b) osmosis (c) imbibition (d) ranspiration

1510) Salt added to pickles brings about_____

(a) diffusion (b) plasmolysis (c) imbibition (d) translocation

1511) Transpiration does not_____

(a) help in ascent of sap (b) help in keeping cells turgid (c) helps in cooling leaves

(d) helps in translocation

1512) Identify the wrong statement

(a) Guttation occurs through stomata

(b) Water molecules stick to xylem because of adhesion

(c) Stoma closes when guard cells are not turgid

(d) Elements like calcium are not remobilised

1513) By active transport _____moves into the cells where it is utilised or stored.

(a) glucose (b) sucrose (c) fructose (d) water

1514) Water from soil enters the root hairs due to_____

(a) capillary Action (b) capillary Action (c) adhesion (d) osmosis

1515) _____is the main circulatory medium in the human body.

(a) Blood (b) Water (c) Lymph (d) Plasma

1516) Plasma is slightly alkaline, containing noncellular substances which constitutes about _____ of the blood.

(a) 55% (b) 44% (c) 35% (d) 50%

1517) Life span of RBC is about_____

(a) 100 days (b) 200 days (c) 150 days (d) 120 days

1518) The other name of red blood corpuscles is _____

(a) erythrocytes (b) leucocytes (c) granulocytes (d) agranulocytes

1519) Normal pulse rate ranges from_____

(a) 80-90/min (b) 70 -90/min (c) 50 - 60/min (d) 70 - 80/min

1520) The bulk movement of substances through the vascular tissue is called _____.

(a) Translocation (b) Imbibition (c) Diffusion (d) Osmosis

1521) In larger organisms transport of nutrients, salts, oxygen, hormones and waste products around the body are performed by the _____ system.

(a) Excretory (b) Circulatory (c) Digestive (d) Respiratory

1522) Active transport is carried out by membrane bound _____.

(a) Carbohydrates (b) Fats (c) Vitamins (d) Proteins

1523) Root hairs are extension of _____.

(a) Epidermal cell (b) Cortical cell (c) Endodermal cell (d) Vascular bundle

1524) The opening and closing of the stomata depends upon the change in turgidity of the _____cells.

(a) Mesophyll (b) Epidermal (c) Guard (d) Parenchyma

1525) The direction of movementin the _____ can be upwards or downwards, i.e., bidirectional.

(a) Xylem (b) Vessels (c) Tracheids (d) Phloem

1526) RBC's are formed in the _____.

(a) Liver (b) Bone marrow (c) Spleen (d) Thymus

1527) Life span of RBCs is about _____.

(a) 100 days (b) 120 days (c) 150 days (d) 200 days

1528) _____are phagocytic and can engulf bacteria.

(a) Lymphocytes (b) Basophils (c) Eosinophils (d) Monocytes

1529) Capillaries are about _____in diameter.

(a) 8 mm (b) $8\mu m$ (c) $80\mu m$ (d) 80 mm

1530) Which blood cells of mammals are concerned with immunity?

(a) Young Erythrocytes (b) Leucocytes (c) Thrombocytes

(d) Matured Erythrocytes

1531) Mitral valve is found between _____.

(a) Right auricle and right ventricle (b) Left auricle and left ventricle

(c) Right ventricle and pulmonary artery (d) Left ventricle and aorta

1532) Animal possesses four chambered heart.

(a) Fish (b) Frog (c) Crocodile (d) Octopus

1533) In myogenic heart beat contraction is initiated by a specialized portion of the heart muscle known as _____.

(a) Sino-atrial (SA) node (b) Atrioventricular (AV) node (c) Purkinje fibres

(d) Atrioventricular bundle

1534) The second sound DUPP is produced by the closure of _____.

(a) Bicuspid valve (b) Tricuspid (c) Semilunar valves (d) Mitral valve

1535) In an healthy adult during normal resting condition systolic and diastolic blood pressure is expressed as

(a) 80mm / 120 mm Hg (b) 120 mm / 80 mm Hg (c) 100 mm / 60 mm Hg

(d) 160mm / 120 mm Hg

1536) Blood groups A, B and O were identified by _____.

(a) Decastello (b) Steini (c) Willium Harvey (d) Karl Landsteiner

1537) Blood group _____ Was recognized by Decastello and Steini in 1902.

(a) A (b) B (c) AB (d) O

1538) Antigens are found on the membrane surface of _____.

(a) WBC (b) Platelets (c) RBC (d) WBC and RBC

1539) Diffusion is a_____ process.

(a) Active (b) Passive (c) Energy requiring (d) ATP utilizing

1540) _____transport utilizes energy to pump molecules against a concentration gradient.

(a) Active (b) Passive (c) 'Downhill' (d) None of the above

1541) The membrane bound proteins (pumps) can transport substances from a low concentration to a high concentration. This is called _____.

(a) Downhill transport (b) Passive transport (c) Uphill transport

(d) None of the above

1542) Absorption of water by seeds and dry grapes is an example for _____.

(a) Imbibition (b) Plasmolysis (c) Ascent of sap (d) Exosmosis

1543) Symplast movement of water is relatively slower than Apoplastic movement.

(a) Slower (b) Faster (c) Rapid (d) Quicker

1544) One of the following is NOT use of Transpiration.

(a) Supplies water for photosynthesis

(b) Transports minerals from soil to all parts of the plant

(c) Helps in the translocation of food

(d) Creates transpirational pull for transport of water

1545) The food synthesised by the leaves are transported by the _____ either to the area of requirement or stored.

(a) Xylem (b) Tracheids (c) Phloem (d) Vessels

1546) Glucose prepared by photosynthesis is converted to _____.

(a) Sucrose (b) Malate (c) Fructose (d) Starch

1547) Water is able to rise to great heights even in the tallest plants, because of

(a) Root pressure (b) Capillary action (c) Transpiration pull (d) Cohesion

1548) It is slightly alkaline, non-living intercellular substance which constitutes about 55% of the blood.

(a) Formed elements (b) Plasma (c) Lymph (d) Blood cells

1549) Red blood corpuscles (RBCs) are otherwise known as _____.

(a) Leucocytes (b) Erythrocytes (c) Thrombocytes (d) Granulocytes

1550) White blood corpuscles (WBC) are otherwise known as _____.

(a) Leucocytes (b) Erythrocytes (c) Thrombocytes (d) Granulocytes

1551) Blood platelets are otherwise known as _____.

(a) Leucocytes (b) Erythrocytes (c) Thrombocytes (d) Granulocytes

1552) _____are by far the most abundant type of cell in the human body, accounting for over 80 % of all cells.

(a) Red blood cells (b) White blood cells (c) Blood platelets (d) Plasma

1553) Red blood cells are _____and disc-shaped.

(a) Amoeboid (b) Biconvex (c) Biconcave (d) Convex

1554) _____is involved in the transport of oxygen from lungs to tissues.

(a) White blood cells (b) Red blood cells (c) Blood platelets (d) Plasma

1555) Loss of _____ allows more flexibility for RBC to move through the narrow capillaries.

(a) Endoplasmic reticulum (b) Mitochondria (c) Ribosome (d) Golgi bodies

1556) _____form 60% - 65% of the total leucocytes.

(a) Neutrophils (b) Eosinophils (c) Basophils (d) All the above

1557) _____have a beneficial role in host defence against parasitic infections and promoting allergic reactions.

(a) Neutrophils (b) Eosinophils (c) Basophils (d) All the above

1558) Lymphocytes produce _____ during bacterial and viral infections.

(a) Antigens (b) Toxins (c) Antibodies (d) Hormones

1559) _____are the largest of the leucocytes and are amoeboid in shape.

(a) Neutrophils (b) Eosinophils (c) Basophils (d) Monocytes

1560) The number of blood platelets or thrombocytes per cubic mm of blood is _____.

(a) 25,000— 40,000 (b) 50,000— 1,00,000 (c) 2,50,000— 4,00,000

(d) 5,00, 000 to 7,00,000

1561) Life span of platelets is only _____days.

(a) 2-3 (b) 15-20 (c) 40 (d) 60

1562) _____play an important role in clotting of blood and prevent blood loss.

(a) White blood cells (b) Red blood cells (c) Blood platelets (d) Plasma

1563) The condition of decrease in number of erythrocytes or RBCs is known as _____.

(a) Leucocytosis (b) Anemia (c) Leucopenia (d) Thrombocytopenia

1564) The condition of decrease in number of leukocytes is known as _____.

(a) Leucocytosis (b) Anemia (c) Leucopenia (d) Thrombocytopenia

1565) Open type circulatory system is found in _____.

(a) Arthropods (b) Molluscs (c) Ascidians (d) All the above

1566) Closed type of circulatory system is found in _____.

(a) Arthropods (b) Molluscs (c) Vertebrates (d) Ascidians

1567) _____bring oxygenated blood to the left atrium from the lungs.

(a) Coronary sinus (b) Pulmonary veins (c) Pulmonary artery (d) Vena cava

1568) The valve which is located between the right auricle and right ventricle is _____.

(a) Tricuspid valve (b) Bicuspid valve or Mitral valve

(c) Pulmonary semilunar valve (d) Aortic semilunar valve

1569) The valve which is located between the left auricle and left ventricle is _____.

(a) Tricuspid valve (b) Bicuspid valve or Mitral valve

(c) Pulmonary semilunar valve (d) Aortic semilunar valve

1570) The valve which is located at the base of aorta is _____.

(a) Tricuspid valve (b) Bicuspid valve or Mitral valve

(c) Pulmonary semilunar valve (d) Aortic semilunar valve

1571) The valve which is located at the base of pulmonary artery is _____.

(a) Tricuspid valve (b) Bicuspid valve or Mitral valve

(c) Pulmonary semilunar valve (d) Aortic semilunar valve

1572) The number heart chambers in fish is _____.

(a) Two (b) Three (c) Incomplete four (d) Four

1573) The number heart chambers in Amphibians is _____.

(a) Two (b) Three (c) Incomplete four (d) Four

1574) The number heart chambers in most of the reptiles is _____.

(a) Two (b) Three (c) Incomplete four (d) Four

1575) The number heart chambers in Aves and Mammals is _____.

(a) Two (b) Three (c) Incomplete four (d) Four

1576) The number heart chambers in Crocodiles (Reptile) is_____.

(a) Two (b) Three (c) Incomplete four (d) Four

1577) Normal pulse rate ranges from _____.

(a) 40-60 (b) 70-90 (c) 80-120 (d) 100-140

1578) If Antigen A is present on the surface of RBC and antibody b (anti-b) is present in the plasma, the blood group present in the person is _____.

(a) A (b) B (c) AB (d) O

1579) If Antigen B is present on the surface of RBC and antibody a (anti - a) is present in the plasma , the blood group present in the person is _____.

(a) A (b) B (c) AB (d) O

1580) If Antigens A and B are present on the surface of RBC and antibodies are absent in the plasma, the blood group present in the person is _____.

(a) A (b) B (c) AB (d) O

1581) If Antigen A or B are absent on the surface of RBC. However, the plasma contains both antibodies a and b (anti a and b), the blood group present in the person is _____.

(a) A (b) B (c) AB (d) O

1582) Persons with_____ blood group are called Universal Recipient.

(a) A (b) B (c) AB (d) O

1583) Persons with_____ blood group are called 'Universal Donor'.

(a) A (b) B (c) AB (d) O

1584) Process by which the water moves out of the cell resulting in the shrinkage of the cell membrane away from the cell wall.

(a) Plasmolysis (b) Osmosis (c) Diffusion (d) Imbibition

1585) Theforce of attraction between the molecules of water is called

(a) Adhesion (b) imbibition (c) Cohesion (d) Diffusion

1586) Excess of water is seen as dews on the leaves of grass. The phenomenon is called

(a) Adhesion (b) Cohesion (c) Guttation (d) Imbibition

1587) RBCs impart red colour due to the presence of the respiratory pigment _____.

(a) Hemoglobin (b) Granulocytes (c) Agranulocytes (d) Leucocytes

1588) Heart contain _____ fluid to reduce the friction during heart beat.

(a) Hemocoel (b) Pericardial (c) Protoplasm (d) Hemoglobin

1589) _____ is a colourless fluid which drains in to the lymphatic capillaries.

(a) Haemocoel (b) Pericardial (c) Haemoglobin (d) Lymph

1590) _____ is a clinical instrument used to measure blood pressure when a Person is in a relaxed and resting condition.

(a) Stethoscope (b) Sphygmomanometer (c) Thermometer (d) Manometer

1591) _____ acts as a 'pace maker' of heart.

(a) Atrioventricular node (b) Digital meter (c) Sphygmomanometer (d) Sino-atrial node

1592) Rh factor was discovered by

(a) Decastello and Steini (b) Landsteiner and Wiener (c) William Harvey (d) His

1593) _____ is decrease in the number of erythrocytes.

(a) Anemia (b) Leukopenia (c) Leucocytosis (d) Thrombocytopenia

1594) Root hairs absorb water and minerals by _____.

(a) Diffusion (b) osmosis (c) plosmosis (d) Imbibition

1595) Blood corpuscles capable of amoeboid movement are _____.

(a) Erythrocytes (b) Leucocytes (c) Blood platelets (d) R.B.C

1596) _____ release chemicals during the process of inflammation.

(a) Eosinophils (b) Basophils (c) Neutrophiles (d) Lymphocyres

1597) Closed type circulatory system is seen in _____.

(a) Arthropods (b) Molluscs (c) Ascidians (d) Vertebrates

1598) Antibodies are absent in _____ blood group.

(a) 'A' group (b) 'B' group (c) AB group (d) 'O' group

1599) The autonomic nervous system is regulated by _____ of brain.

(a) cerebrum (b) pons (c) hypothalamus (d) medulla

1600) Sneezing, yawning etc are examples of _____

(a) voluntary actions (b) involuntary actions (c) reflex actions (d) planned actions

1601) The _____ has a role in sleep cycle.

(a) cerebrum (b) spinal cord (c) pons (d) hypothalamus

1602) _____ is not a characteristic of neuron.

(a) dendrites (b) axon (c) axolemma (d) can divide

1603) The _____ is the second largest part of the brain.

(a) cerebrum (b) medulla (c) cerebellum (d) pons

1604) _____ is the longest cell of the human body.

(a) Neuron (b) Neuroglia (c) Nerve fibres (d) Cyton

1605) Neuroglia are also called as _____

(a) nerve fibres (b) glial cells (c) neuron (d) nerve cell

1606) Cyton is also called cell body or _____

(a) axon (b) perikaryon (c) neuroglia (d) neuron

1607) The cytoplasm has granular body called _____

(a) nissl's granules (b) nerve fibres (c) glial cells (d) nerve cells

1608) Neurons do not have the ability to _____

(a) multiply (b) divide (c) regenerate (d) receive

1609) The plasma membrane of axon is called _____

(a) axolemma (b) axoplasm (c) myelin sheath (d) schwann cells

1610) The axons may be covered by a protective sheath called _____

(a) Myelin (b) Nodes of ranvier (c) Schwann cells (d) Nissl's granules

1611) _____ acts as a insulator.

(a) myelin sheath(b) (b) synaptic junction (c) nodes of ranvier (d) glial cells

1612) _____ carry impulses from the sense organ to the central nervous system.

(a) unipolar neurons (b) efferent neurons (c) motor neurons (d) sensory neurons

1613) Each neuron can transmit _____ nerve impulses per second.

(a) 2000 (b) 3000 (c) 1000 (d) 5000

1614) The _____ is the controlling centre of all the body activities.

(a) heart (b) brain (c) kidney (d) liver

1615) _____ is the innermost, thin delicate membrane richly supplied with blood.

(a) Durameter (b) Myelin sheath (c) Piameter (d) Arachnoid membrane

1616) _____ is an inflammation of the meninges.

(a) Meningitis (b) Myelin sheath (c) Piameter (d) Arachnoid membrane

1617) A human brain is formed of _____ main parts.

(a) three (b) four (c) two (d) six

1618) _____ is the largest portion nearly two - third of the brain.

(a) Thalamus (b) Cerebrum (c) Diencephalon (d) Cerebellum

1619) _____ acts as a relay centre.

(a) Thalamus (b) Hypothalamus (c) Cerebrum (d) Cerebellum

1620) _____ is located between thalamus and hindbrain.

(a) Forebrain (b) Midbrain (c) Cerebral lobes (d) Hypothalamus

1621) _____ second largest part of the brain formed of two large sized hemispheres.

(a) Cerebellum (b) Cerebrum (c) Thalamus (d) Diencephalon

1622) Pons is a bridge of _____

(a) neuron (b) nerve fibre (c) neuroglia (d) glial cells

1623) _____ carry command from spinal cord to our arm.

(a) Motor neurons (b) Sensory neurons (c) Unipolar neurons
(d) Afferent neurons

1624) Peripheral neurons system is formed by the nerves arising from the _____

(a) brain and the spinal cord (b) dorsal or afferent root. (c) ventral or efferent root
(d) spinal nerves

1625) Axon and dendrites are departing from _____

(a) Cyton (b) Cell body (c) Perikaryon (d) All the above

1626) Cytoplasm of neuron is called _____

(a) Neuroplasm (b) Nucleoplasm (c) Axoplasm (d) Non of the above

1627) The numerous branched cytoplasmic processes that project from the surface of the cell body _____

(a) Nervefibres (b) Axon (c) Dendrites (d) Nerves

1628) Single, elongated, slender projection of neuron _____

(a) Nervefibre (b) Axon (c) Dendrite (d) Nerves

1629) _____sacs as insulator and ensures rapid transmission of nerve impulses.

(a) Myelin sheath (b) Neurilemma (c) Nodes of Ranvier (d) Schwann cell

1630) Chemicals produced by synaptic knob to transmits information from one neuron to another neuron through synapse or synaptic junction are known as _____

(a) Axoplasm (b) Neurilemma (c) Neurotransmitters (d) Axolemma

1631) _____are found in early embryos but not in adult.

(a) Unipolar Neurons (b) Bipolar Neurons (c) Multipolar Neurons

(d) None of the above

1632) _____carry impulses from the central nervous system to effector organ such as the muscle fibre or the gland.

(a) Sensory neurons (b) Afferent neurons (c) Efferent neurons (d) All the above

1633) Involuntary functions like hunger, thirst, sleep, sweating, sexual desire, anger, fear, water balance, blood pressure etc. are controlled by _____

(a) Thalamus (b) Pons (c) Hypothalamus (d) Medulla Oblongata

1634) _____controls the secretion of hormones from anterior pituitary gland.

(a) Thalamus (b) Pons (c) Hypothalamus (d) Medulla Oblongata

1635) Midbrain is located between_____ and hind brain.

(a) Thalamus (b) Cerebellum (c) Pons (d) Medulla Oblongata

1636) Cerebellum, pons and medulla oblongata are the parts of _____

(a) Fore brain (b) Mid brain (c) Hind brain (d) Cerebrum

1637) _____coordinates voluntary movements and also maintains body balance.

(a) Cerebrum (b) Pons (c) Cerebellum (d) Spinal cord

1638) The posterior most part of the brain _____

(a) Medulla oblongata (b) Pons (c) Cerebellum (d) Spinal cord

1639) The _____nervous system is formed of sympathetic and parasympathetic nerves.

(a) Central (b) Peripheral (c) Autonomic (d) None of the above

1640) The fattest organ in our body is _____

(a) Liver (b) Kidney (c) Brain (d) Stomach

1641) The grey matter of spinal cord is _____ shaped.

(a) 'H' (b) 'V' (c) 'L' (d) 'C'

1642) Reflex actions of the body is controlled by _____

(a) Medulla oblongata (b) Pons (c) Cerebellum (d) Spinal cord

1643) The nerves arising from the brain and the spinal cord constitute _____nervous system.

(a) Central (b) Peripheral (c) Autonomic (d) None of the above

1644) _____ are non exciting supporting cell of the nervous system.

(a) Neuron (b) Nerve fibre (c) Neuroglia (d) dendron

1645) Cytoplasm inside the cyton is called _____

(a) dendron (b) neuroplasm (c) protoplasm (d) axon

1646) Neurons which carry impulses from the sense organs to the central nervous system _____

(a) Motor (b) Sensory (c) Association (d) Bipolar

1647) Nerve fibre in which axon is covered by myelin sheath

(a) Myelinated (b) Non myelinated (c) Efferent (d) afferent

1648) Unipolar neurons are found in the _____

(a) brain (b) spinal cord (c) embryonic nervous tissue (d) adult Nervous tissue

1649) The sensory organs contain _____ neurons.

(a) Unipolar (b) Bipolar (c) Multipolar (d) Medullated

1650) The part of the brain which controls emotional reactions in our body

(a) Cerebellum (b) Cerebrum (c) Thalamus (d) Hypothalamus

1651) One of the following is a part of the brain stem

(a) Fore brain and mid brain (b) Mid brain and hind brain

(c) Fore brain and hind brain (d) Fore brain and spinal cord

1652) Neurotransmitters are released at the synapse by _____

(a) Dentrites (b) Synaptic knobs (c) Organelles of cyton

(d) Myelin sheath of axon.

1653) _____ controls the involuntary functions of visceral organs.

(a) Peripheral Nervous system (b) Autonomic Nervous system

(c) Central Nervous system. (d) Nervous system

1654) It is a shock absorbing fluid and protects the brain _____

(a) neuroplasm (b) axoplasm (c) cerebrospinal (d) cytoplasm

1655) _____ acts as a thermoregulatory centre.

(a) cerebellum (b) cerebrum (c) pituitary gland (d) hypothalamus

1656) Neurotransmitters are released at the synapse by

(a) tips of dendrites (b) synaptic knobs (c) organelles of cyton (d) axon

1657) For minor surgeries in the body, doctors administer local anaesthesia to a part of the body, so that the pain wiII not be felt by the patient. At which part do you think, the nerve impulse is being arrested due to the effect of anaesthesia?

(a) At cyton (b) At axon (c) At synapse (d) Dendrites

1658) A nerve cell body with single process or fibre which acts both as axon and dendron _____

(a) Unipolar (b) Bipolar (c) Multipolar (d) White neuron

1659) _____ are called as glial cells.

(a) Neuron (b) Neuroglia (c) Nerve fibres (d) Synapse

1660) Fibers pass outward from the anterior horn forming _____

(a) Sympathetic (b) Para sympathetic (c) Spinal Nerves (d) None of the above

1661) _____ collects and removes wastes from the brain.

(a) Medulla oblongata (b) Thalamus (c) Spinal Cord (d) Cerebrospinal fluid

1662) The length of a nerve cell is _____μm

(a) 100 (b) 50 (c) 1000 (d) 10

1663) The term Auxin was introduced by _____

(a) Went (b) Kogi (c) Charles Darwin (d) Kurosawa

1664) Auxins were identified by _____

(a) Darwin (b) Kogi (c) Went (d) Funk

1665) _____ is essential for Morphogenesis.

(a) Auxin and Gibberellin (b) Ethylene (c) Auxin and Cytokinin (d) Cytokinin and Abscissic acid

1666) _____ is a powerful inhibitor of lateral bud growth in Tomato.

(a) Auxin (b) Cytokinin (c) ABA (d) Ethylene

1667) _____ induces bud dormancy towards approach of winter in trees.

(a) Auxin (b) Ethylene (c) ABA (d) Cytokinin

1668) _____ is a growth inhibitor.

(a) Auxin (b) GA (c) Cytokinin (d) Ethylene

1669) _____ is not a function of thyroid.

(a) BMR (b) Body temperature (c) Carbo hydratemetabolism (d) Anti-allergic

1670) _____ is called Stress hormone.

(a) Auxin (b) Gibberellin (c) Cytokinin (d) ABA

1671) Premature shedding is caused by _____

(a) auxin (b) ethylene (c) ABA (d) gibberellin

1672) _____ is a natural Auxin.

(a) Phenyl Acetic Acid (b) Indole 3 Butyric Acid (c) α - Naphthalene Acetic Acid (d) Indole - 3- Propionic Acid

1673) _____ is a gaseous plant hormone.

(a) Auxin (b) Ethylene (c) Cytokinin (d) Abscisic Acid

1674) _____ promotes the development and enlargement of all tissues of the body.

(a) GH (b) TSH (c) GTH (d) ACTH

1675) Over secretion of growth hormone leads to _____ in children.

(a) Dwarfism (b) Acromegaly (c) Gigantism (d) Dysplasia

1676) _____ is also called as Stress hormone.

(a) Auxin (b) Abscisic Acid (c) Ethylene (d) Cytokinin

1677) _____ is found in the chloroplast of plants.

(a) Auxin (b) Abscisic Acid (c) Ethylene (d) Cytokinin

1678) _____ promotes the ripening of fruits.

(a) Auxin (b) Abscisic Acid (c) Ethylene (d) Cytokinin

1679) ABA is a powerful inhibitor of lateral bud growth in _____

(a) tomato (b) apple (c) mango (d) banana

1680) Gibberellins are efficient than _____ in inducing the formation of seedless fruit.

(a) Auxin (b) Cytokinin (c) Ethylene (d) Abscisic Acid

1681) _____ helps in the contraction of the smooth muscles of uterus at the time of child birth.

(a) Oxytocin (b) Prolactin (c) FSH (d) GTH

1682) Dwarfism is caused by decreased secretion of _____ in children.

(a) GH (b) FSH (c) GTH (d) ACTH

1683) Goitre is caused due to the inadequate supply of _____ in our diet.

(a) calcium (b) iodine (c) magnesium (d) iron

1684) Thyroid gland requires _____ of iodine everyday for the production of thyroxine.

(a) 120 µg (b) 110 µg (c) 100 µg (d) 150 µg

1685) Cytokinin is found abundantly in _____

(a) soya (b) coconut (c) sugarcane (d) carrot

1686) _____ is known as father of Endocrinology.

(a) Thomas Addison (b) W. M. Bayliss (c) E. H. Starling (d) Frits Warmolt Went

1687) _____ is the hormone secreted by Thymus.

(a) Thymosin (b) Estrogen (c) Testosterone (d) Progesterone

1688) The mineralocorticoids secreted by Zona glomerulosa is _____

(a) aldosterone (b) testosterone (c) estrogen (d) progesterone

1689) The deficiency of insulin causes _____

(a) diabetes mellitus (b) tetany (c) thyroid dysfunction (d) cretinism

1690) _____ first crystallised thyroxine hormone.

(a) Edward C. Kendal (b) George Barger (c) W. M. Bayliss (d) E. H. Starling

1691) The other name of Antidiuretic hormone is

(a) vasopressin (b) oxytocin (c) prolactin (d) growth hormone

1692) _____ helps to convert glucose to glycogen in liver.

(a) Glucagon (b) Epinephrine (c) Insulin (d) Aldosterone

1693) _____ helps in the breakdown of glycogen to glucose in the liver.

(a) Ephinephrine (b) Norepinephrine (c) Glucagon (d) Insulin

1694) The _____ secrete glucagon.

(a) Alpha cells (b) Beta cells (c) Leydig cells (d) Chromaffin cells

1695) Growth regulators, which control plant growth and development are called _____.

(a) Secondary metabolites (b) Macro element (c) Non-essential elements (d) Phytohormone

1696) Name the plant in which auxin was first discovered?

(a) Mustard (b) Pea (c) Oats (d) Rice

1697) Mark the one, which is NOT a physiological effect of auxin?

(a) Cell elongation (b) Stem elongation (c) Cell differentiation (d) Rooting

1698) Name the site of Gibberellins synthesis

(a) Endosperm (b) Coleoptile tip (c) Young leaves (d) Scutellum

1699) What is bolting?

(a) Internode elongation (b) Rooting (c) Shooting (d) Shoot apical meristem

1700) Which of the following plant hormone is responsible for seed germination?

(a) Auxin (b) Gibberellin (c) Ethylene (d) Abscisic acid

1701) Name the first naturally occurring cytokines.

(a) Neoxanthin (b) Xanthoxin (c) Zeatin (d) Isopentenyl adenine

1702) Which of the following plant hormone causes a delay in leaf senescence?

(a) Abscisic acid (b) Ethylene (c) Auxin (d) Cytokines

1703) Name the stress hormone of the plant.

(a) Brassinosteroid (b) Abscisic acid (c) Cytokines (d) Ethylene

1704) Chemical messengers secreted by ductless glands are called _____.

(a) Lymph (b) Platelets (c) Plasma (d) Hormones

1705) Which of the following is NOT an endocrine gland?

(a) Hypothalamus (b) Pituitary (c) Parathyroid (d) Pancreas

1706) The hormone _____ acts on bone, kidney and intestine to maintain blood calcium levels.

(a) Thyroxine (b) Parathormone (c) Oxytocin (d) vasopressin

1707) _____were the first plant hormones discovered.

(a) Auxins (b) Cytokinins (c) Gibberellins (d) Abscisic Acid

1708) _____are the plant hormones that promote cell division or cytokinesis in plant cells.

(a) Cytokinins (b) Auxins (c) Gibberellins (d) Abscisic Acid

1709) _____promote the growth of lateral buds even in the presence of apical bud.

(a) Cytokinins (b) Auxins (c) Gibberellins (d) Abscisic Acid

1710) _____are the most abundantly found plant hormones.

(a) Cytokinins (b) Auxins (c) Gibberellins (d) Abscisic Acid

1711) _____is a growth inhibitor which regulates abscission and dormancy.

(a) Cytokinins (b) Auxins (c) Gibberellins (d) Abscisic Acid

1712) Decreased secretion of growth hormone in children leads to _____.

(a) Gigantism (b) Acromegaly (c) Dwarfism (d) Goitre

1713) _____is responsible for production of female sex hormones estrogen and progesterone.

(a) Luteinizing hormone (LH) (b) Follicle stimulating hormone (FSH)

(c) Prolactin (PRL) (d) Vasopressin

1714) An amino acid tyrosine and _____are involved in the formation of thyroid hormone.

(a) Calcium (b) Iron (c) Iodine (d) Nitrogen

1715) Melatonin is a hormone produced by the _____gland.

(a) Thyroid (b) Pituitary (c) Pineal (d) Thymus

1716) _____is caused due to the inadequate supply of iodine in our diet.

(a) Goitre (b) Grave's disease (c) Diabetes (d) Hyperglycemia

1717) Insulin helps in the conversion of glucose into glycogen which is stored in _____.

(a) Liver (b) Stomach (c) Spleen (d) Pancreas

1718) Human insulin was first discovered in 1921 by

(a) Fredrick Banting (b) Charles Best (c) MacLeod (d) All the above

1719) Testes are composed of

(a) Seminiferous tubules (b) Leydig cells (c) Sertoli cells (d) All the above

1720) The maturation of ovarian follicles in the ovary is stimulated by _____.

(a) Estrogen (b) Progesterone (c) Thymosin (d) Coritsol

1721) _____promotes the development of secondary sexual characters such as breast development, high pitched voice etc.

(a) Estrogen (b) Progesterone (c) Thymosin (d) Coritsol

1722) The hormone essential for the formation of placenta is _____.

(a) Adrenaline (b) Noradrenalin (c) Estrogen (d) Progesterone

1723) _____has a stimulatory effect on the immune function.

(a) Cortisol (b) Thymosin (c) Oxytocin (d) Adrenaline

1724) The endocrine gland located in the upper part of the chest covering the lower end of trachea.

(a) Adrenal (b) Thymus (c) Pineal (d) Spleen

1725) Thymosin stimulates the production and differentiation of _____.

(a) Lymphocytes (b) RBCs (c) Thrombocytes (d) Haemoglobin

1726) _____promote the elongation of sterns and coleoptiles.

(a) Cytokinins (b) Gibberellins (c) Ethylene (d) Auxin

1727) _____ promote the growth of lateral buds in the presence of apical bud.

(a) Cytokinins (b) Gibberellins (c) Ethylene (d) Auxin

1728) _____ inhibits the elongation of stem

(a) Cytokinins (b) Gibberellins (c) Ethylene (d) Auxin

1729) _____ breaks the dormancy of buds, seeds and storage organs.

(a) Cytokinins (b) Gibberellins (c) Ethylene (d) Auxin

1730) An amino acid _____ and iodine are involved in the formation of thyroid hormone.

(a) Alanine (b) Tyrosine (c) Valine (d) Glycine

1731) The alpha cells of pancreas secrete _____

(a) Glucagon (b) Insulin (c) Valine (d) Glycogen

1732) Beta cells of pancreas secrete _____

(a) Glucagon (b) Insulin (c) Valine (d) Glycogen

1733) _____ prepares the uterus for the implantation of the embryo .

(a) Estrogens (b) Thymosin (c) Progesterone (d) Testosterone

1734) _____ initiates the process of oogenesis.

(a) Estrogens (b) Thymosin (c) Progesterone (d) Testosterone

1735) It stimulates protein synthesis and controls muscular growth

(a) Estrogens (b) Thymosin (c) Progesterone (d) Testosterone

1736) It is essential for the formation of placenta

(a) Estrogens (b) Thymosin (c) Progesterone (d) Testosterone

1737) It is also known as life-saving hormone

(a) Thymosin (b) Cortisol (c) Adrenaline (d) Epinephrine

1738) It is also known as emergency hormone

(a) Thymosin (b) Cortisol (c) Adrenaline (d) Insulin

1739) Muscle spasm known as _____

(a) Thymus (b) Tetany (c) Thymosin (d) Thyroid

1740) It controls the growth of thyroid gland

(a) TSH (b) ACTH (c) GTH (d) FSH

1741) It helps in the contraction of the smooth muscles of uterus at the time of child birth

(a) Prolactin (b) Vasopressin (c) Estrogen (d) Oxytocin

1742) 'Influence' that was observed by Charles Darwin is _____

(a) Gibberellins (b) 2 - 4D (c) Auxin (d) cytokinins

1743) _____ observed Bakanae disease in rice crops.

(a) Darwin (b) Kurosawa (c) F.W.Went (d) Koal

1744) _____ is a growth inhibitor hormone.

(a) Auxin (b) Cytokinin (c) Gibberellins (d) Ethylene

1745) The hormone responsible for the production of female sex hormones is _____

(a) G.T.H (b) FSH (c) LH (d) TSH

1746) The gland, composed of two distinct lobes lying one on either side of the trache is _____

(a) Pineal (b) Thyroid (c) Pituitary (d) pancreas

1747) Fragmentation is seen in_____

(a) Spirogyra (b) Bryophyllum (c) Yeast (d) Hydra

1748) Regeneration is seen in_____

(a) Plasmodium (b) Spirogyra (c) Hydra (d) Amoeba

1749) The pollen is produced in_____

(a) Filament (b) Anther (c) Ovule (d) Stigma

1750) There are_____ polar nuclei in the embryo sac

(a) 2 (b) 3 (c) 4 (d) 1

1751) After fertilization the _____disintegrates.

(a) Ovule (b) Polar nuclei (c) Antipodals (d) Endosperm

1752) Endometrium is prepared for implantation in_____

(a) Follicular phase (b) Ovulatory phase (c) Luteal phase (d) Menstrual phase

1753) _____takes place after implantation.

(a) Cleavage (b) Fertilization (c) Gastrulation (d) Organogenesis

1754) _____from anterior pituitary stimulates milk secretion

(a) Oxytocin (b) Prolactin (c) Progestrone (d) Oestrogen

1755) Pollination with the help of insects like honey bees, flies are called_____

(a) Entomophilly (b) Anemophily (c) Hydrophily (d) Zoophily

1756) Approximately_____ of the pollination done by the insects is carried by honey bees.

(a) 70% (b) 80% (c) 50% (d) 60%

1757) _____is a basal part of the Ovule.

(a) Chalaza (b) Micropyle (c) Nucellus (d) Funiculus

1758) An outgrow arises on the parent body during_____

(a) Fragmentation (b) Fission (c) Budding (d) Regeneration

1759) Squirrels pollinate flowers of_____

(a) Canna (b) Gladioli (c) Silk cotton tree (d) Hydrilla

1760) Each stamen consists of a small bag like structure called_____

(a) Anther (b) Filament (c) Pollengrain (d) Germpore

1761) The process of spermatogenesis takes place inthe_____

(a) Sertolicel cells (b) Seminiferous tubules (c) Leydigcells (d) Centrioles

1762) Normal gestation period of human last for about _____days

(a) 280 (b) 380 (c) 480 (d) 580

1763) During pregnancy the uterus expands upto _____ times of its normal size

(a) 500 (b) 600 (c) 400 (d) 200

1764) The fertilized egg becomes implanted in about_____ after fertilization

(a) 5-7days (b) 5-6days (c) 6 - 7 days (d) 5 - 8 days

1765) An oocyte is alive for about_____ after it is released from the follicle

(a) 24 hours (b) 12 hours (c) 15 hours (d) 20 hours

1766) _____has been one of the first country in the world to launch the nation wide family planning programme in 1952.

(a) India (b) China (c) America (d) Afric

1767) _____from the posterior pituitary stimulates the uterine contractions

(a) Oxytocin (b) Insulin (c) Estrogen (d) Prolactin

1768) Which is an example of self - pollination

(a) Hibiscus (b) Grasses (c) Apples (d) Rose

1769) _____is a disc shaped structure.

(a) Uterus (b) Placenta (c) Ovary (d) Sperm

1770) Lack of menstruation generally indicates_____

(a) Pregnancy (b) Anemia (c) Amenorrhea (d) Over weight

1771) The uterus prepares itself to receive the fertilized egg every_____

(a) Year (b) Day (c) Week (d) Month

1772) Milk production from alveoli of mammary gland is stimulated by_____

(a) Prolactin (b) Insulin (c) Oxytocin (d) Estrogen

1773) Theejection of milk is stimulated byposterior pituitary hormone called_____

(a) Prolactin (b) Insulin (c) Oxytocin (d) Estrogen

1774) Changes in the ovary and the uterus are induced by the_____

(a) LH&FSH (b) TRH&TSH (c) MSH&TRH (d) GH&PRH

1775) Breaking of the filament into many fragments is called_____

(a) Fission (b) Fragmentation (c) Budding (d) Regeneratio

1776) The cell division takes place during vegetative reproduction is _____.

(a) Amitosis (b) Mitosis (c) Meiosis (d) Non of the above

1777) In Sweet potato, vegetative propagation takes place by _____.

(a) Root (b) Buds (c) Flower (d) Leaf

1778) In this type of reproduction, the parent cell divides into two daughter cells and each cell develops into a new adult organism.

(a) Budding (b) Bulbils (c) Regeneration (d) Fission

1779) The method which is common for Hydra and Planaria is

(a) Fission (b) Budding (c) Regeneration (d) None of the above

1780) Asexual reproduction mostly occurs by _____ formation.

(a) Spore (b) Egg (c) Sperm (d) Zygote

1781) Asexual reproduction is common in

(a) Fungi (b) Algae (c) Bacteria (d) All the above

1782) A mature _____ contains two cells, the vegetative and the generative cell.

(a) Ovule (b) Pollen grain (c) Ovary (d) Anther

1783) One of the following is not the part of carpel.

(a) Ovary (b) Anther (c) Style (d) Stigma

1784) _____ is the basal part of the ovule.

(a) Integument (b) Funiculus (c) Chalaza (d) Micropyle

1785) The embryo sac contains _____ cells.

(a) 4 (b) 5 (c) 6 (d) 7

1786) The first event of sexual reproduction in plant is _____.

(a) Fertilization (b) Pollination (c) Zygote formation (d) Pollen germination

1787) The stigmas are comparatively large, protruding and sometimes hairy to trap the pollen grains in _____ flowers.

(a) Hydrophilous (b) Entamophilous (c) Zoophilous (d) Anemophilous

1788) Find the anemophilous

(a) Hibiscus (b) Hydrilla (c) Grass (d) Canna

1789) _____ flowers are brightly coloured, have smell and nectar.

(a) Hydrophilous (b) Entamophilous (c) Zoophilous (d) Anemophilous

1790) The pollen grains of _____ flowers are larger in size, the exine is pitted, spiny etc., so they can be adhered firmly on the sticky stigma.

(a) Hydrophilous (b) Entamophilous (c) Zoophilous (d) Anemophilous

1791) Approximately, 80% of the pollination done by the insects is carried by _____.

(a) Grasshopper (b) Honey bees (c) Housefly (d) Dragonfly

1792) Endosperm nucleus is triploid in nature.

(a) Haploid (b) Diploid (c) Triploid (d) Tetraploid

1793) In angiosperms, the fusion of second sperm with secondary nucleus is known as _____.

(a) Fertilization (b) Double fertilization (c) Triple fusion (d) All the above

1794) Since two types of fusion, syngamy and triple fusion take place in an embryo sac the process is termed as

(a) Fertilization (b) Double fertilization (c) Triple fusion (d) All the above

1795) Sperm production begins in the

(a) Seminiferous tubules (b) Epididymis (c) Vas deferens (d) Ejaculatory duct

1796) The cell produced by fertilization is called

(a) gamete (b) embryo (c) fetus (d) zygote

1797) The primary sex organ is known as _____.

(a) Penis (b) Urethra (c) Fallopian tube (d) Gonads

1798) Which of the following produces the male sex hormone?

(a) Rete testis (b) Seminiferous tubule (c) Leydig cell (d) Scrotum

1799) Out of the following, which hormone does not secret from corpus luteum?

(a) Estrogen (b) Progesterone (c) Relaxin (d) Testosterone

1800) Name the hormone which is at peak during ovulation.

(a) Progesterone (b) Estrogen (c) FSH (d) LH View Answer

1801) Name the site of sperm maturation?

(a) Epididymis (b) Ductus deferens (c) Spermatic cord (d) Urethra

1802) Which of the following gland is seen in male reproductive system?

(a) Seminal vesicle (b) Prostate gland (c) Bulbourethral gland (d) All of these

1803) Where seminiferous tubules of each lobe empty sperms?

(a) Vas deference (b) Vasa efferentia (c) Epididymus (d) Seminal vesicles

1804) Function of epididymis is _____

(a) A temporary storage site

(b) For the immature sperms complete their maturation process

(c) Gain the ability of swimming (motility) (d) All of these

1805) Gametes with _____ cells are produced through gametogenesis.

(a) Haploid (b) Diploid (c) Triploid (d) None of the above

1806) Stroma of ovary is lined by the _____ epithelium.

(a) Squamous (b) Germinal (c) Columnar (d) Glandular

1807) The number of primordial follicles in new born female child ranges over _____.

(a) 7000 (b) 700000 (c) 7 Lakhs (d) 7 million

1808) In human females the menstrual cycle starts at the age of _____ years.

(a) 11 - 13 (b) 15 - 16 (c) 18 - 20 (d) 21 - 23

1809) The phase of menstrual cycle in which, the Graafian follicle ruptures, and releases the ovum(egg) is

(a) Menstrual or Destructive Phase (b) Follicular or Proliferative Phase

(c) Ovulatory Phase (d) Luteal or Secretory Phase

1810) The phase of menstrual cycle in which, development of primary follicles takes place

(a) Menstrual or Destructive Phase (b) Follicular or Proliferative Phase

(c) Ovulatory Phase (d) Luteal or Secretory Phase

1811) The phase of menstrual cycle in which, primary follicles grow to become a fully mature Graafian follicle is

(a) Menstrual or Destructive Phase (b) Follicular or Proliferative Phase

(c) Ovulatory Phase (d) Luteal or Secretory Phase

1812) The phase of menstrual cycle in which, emptied Graafian follicle develops into corpus luteum is

(a) Menstrual or Destructive Phase (b) Follicular or Proliferative Phase

(c) Ovulatory Phase (d) Luteal or Secretory Phase

1813) The first cleavage in zygote takes place about _____ hours after fertilization.

(a) 2 (b) 10 (c) 30 (d) 90

1814) The blastocyst gets implanted in the _____.

(a) Ovary (b) Fallopian tube (c) Uterus (d) Vagina

1815) _____ is the expulsion of young one from the mother's uterus at the end of gestation.

(a) Gestation (b) Parturition (c) Implantation (d) Ovulation

1816) Milk production from alveoli of mammary glands is stimulated by _____ secreted from the anterior pituitary.

(a) Prolactin (b) Oxytocin (c) Estrogen (d) Progesterone

1817) The ejection of milk is stimulated by posterior pituitary hormone _____.

(a) Prolactin (b) Oxytocin (c) Estrogen (d) Progesterone

1818) India launched the nation wide family planning programme in the year _____.

(a) 1945 (b) 1947 (c) 1952 (d) 1966

1819) Among the following _____ is the vegetative part of plant.

(a) root and stem (b) flower and dry leaf (c) ovule and stigma
(d) Anther and stigma

1820) Vegetative reproduction by stem is in _____ plant.

(a) bryophyllum (b) sweet potato (c) hibiscus (d) yeast

1821) _____ roots can be used for vegetative propagation.

(a) Fibrous (b) main (c) Tap (d) Tuberous

1822) Bulbil is the vegetative part in _____ plant.

(a) Agave (b) Asparagus (c) Hydra (d) strawberry

1823) Spore formation is the most common method of asexual reproduction in _____.

(a) plants (b) animals (c) fungi (d) None of these

1824) In sexual reproduction male and female organs are needed to produce _____.

(a) stem (b) leaf (c) flower (d) gametes

1825) Calyx is otherwise called as _____.

(a) sepal (b) petal (c) stamen (d) carpel

1826) _____ is the male part of flower.

(a) sepal (b) stigma (c) Androecium (d) Gynoecium

1827) In flower each stamen consist of a stalk called _____.

(a) anther (b) stigrna (c) style (d) filament

1828) In the pollen grain the intine layer is made up of _____ and cellulose.

(a) Hemi cellulose (b) pectin (c) chitin (d) starch

1829) _____ is the basal part of ovule.

(a) Funiculus (b) Nucellus (c) Chalaza (d) Micropyle

1830) No wastage of pollen grains occurs in _____ pollination.

(a) cross (b) bisexual (c) self (d) polar

1831) The _____ flowers produce enormous amount of pollen grains.

(a) entomophilous (b) anemophilous (c) hydrophilous (d) zoophilous

1832) Pollination by water occurs in _____ plant.

(a) grass (b) Vallisneria (c) silk cotton tree (d) mango tree

1833) Pollen grain reach the stigma to form a tube like structure called _____.

(a) germ pore (b) micropyle (c) style (d) pollen tube

1834) The _____ is the male secondary sex organ.

(a) fallopian tube (b) vas deferens (c) cervix (d) vagina

1835) The _____ is the female secondary sex organ.

(a) fallopian tube (b) vas deferens (c) epididymis (d) seminal vesicle

1836) Each testes is covered with a larger fibrous tissue called _____.

(a) graafian follicle (b) seminiferous tubules (c) tunica albuginea (d) scrotum

1837) _____ hormone initiates the process of spermatogenesis.

(a) Testosterone (b) Hyaluronidase (c) Estrogen (d) Progesterone

1838) The corona radiata is formed as _____ cells in ovum.

(a) Leydig cells (b) Sertoli cells (c) vitelline cells (d) follicle cells

1839) Generally, boys attain puperty between the age of _____ years.

(a) 13-14 (b) 11-13 (c) 12-17 (d) 10-14

1840) The process of attachment of blastocyst to the endometrium is called _____ .

(a) fertilization (b) blastula formation (c) implantation (d) gastrulation

1841) _____ is the rupture of the follicle releasing the egg or ovum.

(a) fertilization (b) Implantation (c) Gastrulation (d) Ovulation

1842) _____ is the urinary Tract Infection that affect both women and men.

(a) cystitis (b) fever (c) lephtospirosis (d) AIDS

1843) The inverted _____ triangle is a symbol of family planning in India.

(a) blue (b) green (c) red (d) yellow

1844) _____ vegetative reproduction is found in strawberry plant.

(a) Stem (b) Root (c) Leaf (d) Bud

1845) In egg apparatus, the remaining two cells are called _____.

(a) somatic cell (b) generative cells (c) reproductive cells (d) synergids

1846) Sunbird pollinates flowers of _____.

(a) canna (b) hydrilla (c) Vallisneria (d) grass

1847) _____ is the method of permanent birth control.

(a) Cervical cap (b) Hormonal methods (c) copper. T (d) surgical methods

1848) V shaped chromosomes are called _____.

(a) metacentric (b) acrocentric (c) submetacentric (d) telocentric

1849) The sex chromosomes in a human cell refer to the_____

(a) 22^{nd} pair (b) 20^{th} pair (c) 23^{rd} pair (d) 21^{st} pair

1850) The haploid condition in a human cell refers to_____ chromosomes

(a) 44 (b) 23 (c) 46 (d) 22

1851) L shaped chromosomes are described as_____

(a) acrocentric (b) metacentric (c) submetacentric (d) telocentric

1852) _____is not a nitrogenous base.

(a) Adenine (b) Thymine (c) Leucine (d) Cytosine

1853) Choose the correct pair

(a) A ≡ T (b) G ≡ A (c) A ≡ C (d) G ≡ C

1854) Franklin and Wilkin were awarded nobel prize for_____.

(a) studying DNA replication (b) studying about RNA

(c) X - ray diffraction studies of DNA. (d) isolating DNA

1855) Down's syndrome is a case of_____

(a) Euploidy (b) Deletion (c) Translocation (d) Aneuploidy

1856) _____is a gene mutation

(a) Deletion (b) Duplication (c) Translocation (d) Ploidy

1857) The enzyme called_____ bind to the origin of replication site.

(a) Replicase (b) Helicase (c) Amylase (d) Ligase

1858) In human, each cell normally consists _____of chromosomes.

(a) 23 pairs (b) 22 pairs (c) 20 pairs (d) 12 pairs

1859) Hydrogen bonds between the nitrogeneous bases make the DNA molecule_____

(a) unstable (b) stable (c) unbalanced (d) disturbed

1860) _____is the common genetic material for all organisms except some viruses.

(a) Mitochondria (b) RNA (c) DNA (d) Ribosome

1861) One of the following characters of pea plant is NOT CORRECT. Find out it.

(a) The flowers are unisexual (b) It is an annual (c) It is easy to cross-pollinate

(d) It has deeply defined contrasting characters

1862) The actual number of tall and dwarf plants obtained in F2 generation by Mendel in Monohybrid cross were 787 tall and_____ dwarf.

(a) 354 (b) 787 (c) 177 (d) 277

1863) Phenotypic ratio of Mendel's Monohybrid cross is _____

(a) 3:1 (b) 1:3 (c) 1:2:1 (d) 2:1:2

1864) A dihybrid cross produced _____ types of F2 offsprings

(a) Two (b) Three (c) Four (d) Six

1865) If the centromere is found on the proximal end of chromosome, it is called as _____

(a) Telocentric (b) Acrocentric (c) Submetacentric (d) Meta centric

1866) If the centromere is found at the one end with a short arm and a long arm, the chromosome is called as _____

(a) Telocentric (b) Acrocentric (c) Submetacentric (d) Meta centric

1867) If the centromere is found near the centre of the chromosome and form two unequal arms, the chromosome is called as _____

(a) Telocentric (b) Acrocentric (c) Submetacentric (d) Meta centric

1868) If the centromere occurs in the centre of the chromosome and form two equal arms. The chromosome is called _____

(a) Telocentric (b) Acrocentric (c) Submetacentric (d) Meta centric

1869) _____contain genes that determine the somatic (body) characters.

(a) Allosomes (b) Autosomes (c) Sex chromosomes (d) Hetero-chromosomes

1870) _____are chromosomes which are responsible for determining the sex of an individual.

(a) Allosomes (b) Sex chromosomes (c) Hetero-chromosomes (d) All the above

1871) Adenine (A) links Thymine (T) with _____ hydrogen bonds

(a) One (b) Two (c) Three (d) Four

1872) Cytosine (C) links Guanine (G) with_____hydrogen bonds.

(a) One (b) Two (c) Three (d) Four

1873) The length of the complete turns of the double helix is _____.

(a) 34A° or 3.4 nm (b) 38A° or 3.8 nm (c) 0.34A° or 0.003.4 nm

(d) 3.4A° or 0.34 nm

1874) The distance between two base pair in a DNA is _____.

(a) 34A° or 3.4nm (b) 38A° or 3.8nm (c) 0.34A° or 0.003.4nm

(d) 3.4A° or 0.34nm

1875) Each complete turn of the double helix of DNA consists of _____ base pairs.

(a) Five (b) Eight (c) Ten (d) Twenty

1876) The specific points on the DNA, where the replication begins, is the _____of replication.

(a) Terminus (b) Site of origin (c) Replication fork (d) None of the above

1877) A new complementary strand of DNA is formed from each of the parent strand by the enzyme _____

(a) Topoisomerase (b) DNA helicases (c) DNA polymerase (d) DNA Ligases

1878) Human beings have _____pairs of autosomes

(a) 22 (b) 23 (c) 44 (d) 46

1879) The chromosome type in female gametes or the eggs is _____.

(a) 22 + XY (b) 22 + Y (c) 22 + XX (d) 22 + X

1880) The chromosome type in male gametes or the sperms is _____.

(a) 22 + X (b) 22 + Y (c) 22 + XY (d) Both a) and b)

1881) The_____ determines the sex of the child

(a) Zygote (b) Egg (c) Sperm (d) Ova

1882) Triploid plants and animals are typically _____

(a) Sterile (b) Fertile (c) Bisexual (d) Unisexual

1883) The condition of having a diploid chromosome complement in which one chromosome lacks its homologous partner (2n -1) is _____

(a) Monosomy (b) Trisomy (c) Nullisomy (d) None of the above

1884) The condition in which an extra copy of a chromosome (2n + 1) is present in the cell nuclei is known as _____

(a) Monosomy (b) Trisomy (c) Nullisomy (d) None of the above

1885) _____is a condition where a pair of homologous chromosomes that would normally be present is missing (2n - 2).

(a) Monosomy (b) Trisomy (c) Nullisomy (d) None of the above

1886) Down's syndrome is an example for _____

(a) Monosmy (b) Triosomy (c) Nullisomy (d) None of the above

1887) Sickle cell anaemia is an example for _____

(a) Gene mutation (b) Chromosomal mutation (c) Euploidy (d) Aneuploidy

1888) Due to the Alteration in the protein molecule caused by gene mutation, the red blood cell (RBC) that carries the haemoglobin is _____ shaped.

(a) Spherical (b) Oval (c) Disc (d) Sickle

1889) In tobacco, if the diploid number of chromosomes is 48, how many chromosomes will be found in a pollen grain?

(a) 96 (b) 48 (c) 24 (d) 12

1890) Mitotic cell division results in two cells that have:

(a) n chromosomes and are genetically identical

(b) n chromosomes and are genetically different

(c) 2n chromosomes and are genetically identical

(d) 2n chromosomes and are genetically different

1891) The four cells produced in meiosis will have a:

(a) 2n number of chromosomes and will differ genetically from each other

(b) 2n number of chromosomes and will be genetically identical to each other

(c) n number of chromosomes and will be genetically identical to each other

(d) n number of chromosomes and will differ genetically from each other

1892) An example of alleles is _____

(a) AB and Tt (b) TT and Tt (c) T and t (d) X and Y

1893) If two white sheep produce a black offspring, the parent's genotypes for colour must be _____

(a) Heterozygous (b) Homozygous white (c) Homozygous black

(d) None of the above

1894) Which of the following factors could lead to variations in the offspring of asexually reproducing organisms?

(a) Crossing over (b) Fertilization (c) Mutations (d) Independent assortment

1895) Normal human eggs have:

(a) 22 autosomes and an X chromosome (b) 22 autosomes and a Y chromosome

(c) 23 autosomes (d) 46 chromosomes

1896) Mendel was born in the year _____

(a) 1822 (b) 1847 (c) 1865 (d) 1900

1897) Botanical name of pea plant is _____

(a) Pisum sativum (b) Lathyrus odoratus (c) Mirabilis jalapa (d) d) Antirrhinum

1898) Genotype means _____

(a) The genetic constitution of an organism (b) The appearance of an organism
(c) The gametes produced by male parent
(d) The gametes received by female parent

1899) Biogenesis was speculated by _____.

(a) Haldane (b) Pasteur (c) Darwin (d) Lamarck

1900) The idea of Chemical Evolution of life was developed by_____

(a) Haldane and Oparin (b) Pasteur (c) Libby (d) Leonardo da vinci

1901) _____ is not an example of vestigial organ.

(a) Coccyx (b) Appendix (c) Thick hair (d) Nictitating membrane

1902) _____ is called the Father of Palaeontology.

(a) Pasteur (b) Birbal sahani (c) Haeckel (d) Leonardo da vinci

1903) Ancon sheep is an example of _____.

(a) vestigial organ (b) discontinuous variation (c) acquired character
(d) natural selection

1904) The Father of Paleobotany / Founder of Modern Paleobotany is _____

(a) Leonardo da Vinci (b) Sternberg (c) Haldane (d) Sahani

1905) _____ is the only planet in the Goldilock zone.

(a) Jupiter (b) Mars (c) Earth (d) Venus

1906) Biogenetic law or Recapitulation theory was given by_____

(a) Leonardo da vinci (b) Ernst Haeckel (c) Oparin (d) Haldane

1907) The Big Bang theory explains the _____

(a) Origin of Universe (b) Origin of sea (c) Origin of mountain (d) Origin of water

1908) Paleobotany is derived from Greek words Paleon that means _____.

(a) old (b) new (c) past (d) aged

1909) _____ or sediments fill the hollow depression and forms a cast.

(a) Rocks (b) Sand (c) Soil (d) Minerals

1910) The process of formation of fossils in the rocks is called _____.

(a) calcification (b) crystallization (c) petrification (d) fossilization

1911) Radioactive Carbon (C^{14}) dating method was discovered by_____.

(a) W.F.Libby (b) Niels Bohr (c) Issac Newton (d) William Harvey

1912) Minerals like _____ slowly penetrate in and replace the original organic tissue and forms a rock like fossil.

(a) calcium (b) sodium (c) magnesium (d) silica

1913) Most _____ and wood fossils are petrified.

(a) bone (b) soils (c) sands (d) rocks

1914) Charles Darwin was a great _____.

(a) Chemist (b) Naturalist (c) Doctor (d) Physicist

1915) The degenerated wing of _____ is an example for organ of disuse.

(a) kiwi (b) chicken (c) duck (d) dove

1916) Earth was supposed to have been formed about _____ years back.

(a) 4.5 million (b) 4.5 billion (c) 45 million (d) 45 billion

1917) Life appeared _____ years after the formation of earth.

(a) 50 billion (b) 50 million (c) 500 billion (d) 500 million

1918) Biogenesis theory was proposed by

(a) Charles Darwin (b) Jean Baptiste Lamarck (c) Louis Pasteur (d) Oparin

1919) According to Spontaneous generation (Abiogenesis) theory life originated spontaneously from _____.

(a) Living organisms (b) Lifeless matter (c) Bacteria (d) Pre-existing life

1920) According to Biogenesis theory, life originated from _____.

(a) Organic chemicals (b) Lifeless matter (c) Fire (d) Pre-existing life

1921) Oparin (1922) and Haldane (1929) proposed _____.

(a) Chemical Evolution of Life (b) Cosmic origin of life or Theory of Extraterrestrial

(c) Spontaneous generation (Abiogenesis) theory (d) Biogenesis theory

1922) Most accepted theory of origin of life is _____.

(a) Chemical Evolution of Life (b) Cosmic origin of life or Theory of Extraterrestrial

(c) Spontaneous generation (Abiogenesis) theory (d) Biogenesis theory

1923) Inorganic molecules — > Organic molecules — > Colloid system — > Life. This is the concept of _____.

(a) Chemical Evolution of Life (b) Cosmic origin of life or Theory of Extraterrestrial

(c) Spontaneous generation (Abiogenesis) theory (d) Biogenesis theory

1924) Organs which have inherited from common ancestors, look dissimilar and adapted for different functions are known as _____ organs.

(a) Homologous (b) Analogous (c) Vestigial (d) None of the above

1925) The fore limbs of mammals such as human hand, front leg of a cat, flipper of a whale and bat's wing are examples for _____ organs.

(a) Homologous (b) Analogous (c) Vestigial (d) None of the above

1926) Organs which look similar and perform similar functions but they have different origin are known as _____.

(a) Homologous (b) Analogous (c) Vestigial (d) None of the above

1927) The wings of a bat, the wings of a bird and wings of an insect seem to be similar and perform similar function but they have different origin. They are examples for _____ organs.

(a) Homologous (b) Analogous (c) Vestigial (d) None of the above

1928) The degenerated and non-functional organs of animals are called _____ organs.

(a) Homologous (b) Analogous (c) Vestigial (d) None of the above

1929) Vermiform appendix, nictitating membrane, caudal vertebra, coccyx are examples for _____ organs.

(a) Homologous (b) Analogous (c) Vestigial (d) None of the above

1930) Presence of rudimentary tail in new born babies, presence of thick hair on the human body are examples for _____.

(a) Homologous organs (b) Analogous organs (c) Vestigial organs (d) Atavism

1931) Archaeopteryx is the oldest known fossil _____.

(a) Amphibian (b) Reptile (c) Bird (d) Mammal

1932) Wings with feathers, like a bird and had long tail, clawed digits and conical teeth, like a reptile is the characteristics feature of _____.

(a) Bat (b) Penguin (c) Archaeopteryx (d) Ostrich

1933) "Theory of inheritance of Acquired Characters" was proposed by _____.

(a) Charles Darwin (b) Leonardo da Vinci (c) Jean Baptiste Lamarck

(d) Louis Pasteur

1934) If an organ is used constantly, the organ develops well and gets strengthened and when an organ is not used for a long time, it gradually degenerates. This is concept of _____.

(a) Theory of Natural Selection (b) Use and disuse theory

(c) Spontaneous generation theory (d) Biogenesis theory

1935) Charles Darwin was one of the great naturalist and philosopher of _____ century.

(a) 15^{th} (b) 16^{th} (c) 17^{th} (d) 18^{th}

1936) Charles Darwin was born in _____ in 1809.

(a) America (b) Italy (c) France (d) England

1937) Competition among the individuals of same species is known as _____ struggle.

(a) Environmental (b) Intraspecific (c) Interspecific (d) Intergeneric

1938) Competition between the organisms of different species living together is known as _____ struggle.

(a) Environmental (b) Intraspecific (c) Interspecific (d) Intergeneric

1939) Struggle of an organism against the natural conditions like extreme heat or cold, drought and floods is known as _____ struggle.

(a) Environmental (b) Intraspecific (c) Interspecific (d) Intergeneric

1940) Sexual reproduction, which involve _____ helps in recombination of genes during gametic fusion.

(a) Amitosis (b) Mitosis (c) Meiosis (d) Fission

1941) Mutation theory was proposed by _____.

(a) Charles Darwin (b) Leonardo da Vinci (c) Jean Baptiste Lamarck

(d) Hugo de Vries

1942) Mutation occurs due to _____.

(a) Errors occurring in DNA (b) Exposure to UV rays (c) Exposure to chemicals

(d) All of the avove

1943) "Father of Paleobotany" is _____.

(a) Charles Darwin (b) Leonardo da Vinci (c) Kaspar Maria Von Sternberg
(d) Hugo de Vries

1944) Bohemian National Museum in Prague, consists the collections related to Paleobotany, was established by _____.

(a) Charles Darwin (b) Leonardo da Vinci (c) Kaspar Maria Von Sternberg
(d) Hugo de Vries

1945) _____ is the "Father of Indian Paleobotany".

(a) Birbal Sahani (b) Leonardo da Vinci (c) Kaspar Maria Von Sternberg
(d) Hugo de Vries

1946) The study of a region's plants and their practical uses through the traditional knowledge of the local culture of people is called as _____.

(a) Ethnobotany (b) Paleobotany (c) Ecology (d) Phytosociology

1947) The science which looks for the presence of extra terrestrial life in the universe is _____.

(a) Astrobiology (b) Exobiology (c) Astrology (d) Options a) and b)

1948) Example for Analogous organ.

(a) Wings of a bird (b) Human hand (c) Flipper of a whale (d) Front leg of a cat

1949) Darwin worked for a period of _____ to develop the theory of natural selection.

(a) 10 years (b) 20 years (c) 30 years (d) 40 years

1950) The first form of life could have come from pre.existing inorganic molecules. This theory is called as _____.

(a) Spontaneous generation (Abiogenesis) (b) Biogenesis
(c) Chemical Evolution of life (d) Special creation

1951) _____ published the book Origin of species.

(a) Lamarck (b) Oparin (c) Darwin (d) Haldane

1952) _____ variations are not heritable.

(a) Somatic variation (b) Germinal Variation (c) Continuous variation
(d) Discontinuous Variation

1953) Most bones and wood fossils are _____.

(a) petrified (b) Mold and cost (c) Carbonization (d) preservation

1954) In Tamil Nadu Fossil Wood Park is situated in _____ District.

(a) Madurai (b) Chennai (c) Nellai (d) Villupuram

1955) _____ is the raw material which plays an important role in evolution.

(a) variations. (b) Sudden Changes (c) Homologous organs (d) None of the above

1956) _____ were transfered into different planets includng the earth. a. plasma b. protozoa c. panspermia d. plaminoa

(a) c. panspermia

1957) Dr. Norman was an _____ agronomist.

(a) American (b) Asian (c) Russian (d) British

1958) Dr. Norman received the Nobel peace prize in_____

(a) 1960 (b) 1980 (c) 1956 (d) 1970

1959) The International rice research institute is located at_____.

(a) New Delhi (b) Mexico (c) Phillipines (d) China

1960) The rice variety peta was from _____

(a) China (b) Mexico (c) Indonesia (d) India

1961) Dr. M. S. Swaminathan did experiments in _____.

(a) rice (b) cotton (c) flax (d) linseed

1962) Pusa snowball is a disease resistant variety of_____.

(a) cowpea (b) cauliflower (c) wheat (d) rice

1963) Pusa sawani is a insect resistant variety of _____

(a) cowpea (b) flat bean (c) lady's finger (d) brassica

1964) _____ is an example of auto triploid

(a) Coffee (b) Banana (c) Potato (d) Peanut

1965) Blood dotting factors produced by biotechnology helps patients suffering from_____.

(a) haemophilia (b) homeostasis (c) cerebral palsy (d) CHD

1966) In human beings, _____ of the DNA base sequences are the same and this is called as bulk genomic DNA.

(a) 99% (b) 50% (c) 90% (d) 70%

1967) The human genome has _____ base pairs.

(a) 3 billion (b) 3 million (c) 30 million (d) 30 billion

1968) DNA finger printing was developed by

(a) Dr. Ian Wilmut (b) Alec Jeffrey (c) Lilly (d) Dr. Norman

1969) _____ is father of "Indian Green Revolution"

(a) Dr. M. S. Swaminathan (b) Dr. Norman (c) Alec Jeffrey (d) Dr. Ian Wilmut

1970) _____ is a hybrid of wheat and rye

(a) Triticale (b) Raphano bras sica (c) Bananas (d) Water melons

1971) An organism having more than two sets of chromosomes is called

(a) Diploid (b) Haploid (c) Monoploid (d) Polyploid

1972) According to Lamarck, the acquired characters are transmitted to the offspring by the process of _____

(a) mutation (b) inheritance (c) gradual change (d) degeneration

1973) For his contributions to the world food supply, Dr. Norman E. Borlaug was awarded the Nobel Peace Prize in the year _____.

(a) 1960 (b) 1970 (c) 1972 (d) 1975

1974) Sonalika, Kalyan Sona are semi-dwarf varieties of _____.

(a) Paddy (b) Maize (c) Groundnut (d) Wheat

1975) The wheat variety which has resistance against the diseases leaf and stipe rust, hill bunt is _____.

(a) Himgiri (b) Pusa Shubhra (c) Pusa Komal (d) Pusa Snowball

1976) Pusa Shubhra and Pusa Snowball are the varieties of _____ having resistance against black rot disease.

(a) Rice (b) Cauliflower (c) Wheat (d) Cow pea

1977) The cowpea variety which has resistance against the disease bacterial blight is _____.

(a) Himgiri (b) Pusa Shubhra (c) Pusa Komal (d) Pusa Snowball

1978) Indian scientist known for his leading role in India's Green Revolution.

(a) Dr. G. Nammalvar (b) Dr. M. S. Swaminathan (c) Dr. Norman E. Borlaug (d) Dr. Ian Wilmut

1979) Pusa Sem 2 and Pusa Sem 3 are the varieties of _____.

(a) Brassica (b) Cauliflower (c) Flat Bean (d) Lady's finger

1980) Pusa Sawani and Pusa A4 are the varieties of _____.

(a) Brassica (b) Cauliflower (c) Flat Bean (d) Lady's finger

1981) Pusa Gaurav is the variety of_____.

(a) Brassica (b) Cauliflower (c) Flat Bean (d) Lady's finger

1982) The nutritional quality of crops may be improved with respect to its

(a) Protein content (b) Oil content (c) Mineral content (d) All the above

1983) Protina, Shakti and Rathna are lysine rich _____ hybrids developed in India.

(a) Maize (b) Wheat (c) Rice (d) Lady's finger

1984) Atlas 66 is a protein rich _____ variety.

(a) Maize (b) Wheat (c) Rice (d) Lady's finger

1985) Phaseolus mungo (Black Gram) is an exotic species introduced from _____.

(a) China (b) Mexico (c) Philippines (d) Japan

1986) The plant breeding method in which progeny of a single individual obtained by self breeding is known as _____.

(a) Pureline selection (b) Clonal selection (c) Polyploidy Breeding (d) Mass selection

1987) Selection of desirable clones from the mixed population of vegetatively propagated crop is called _____.

(a) Pureline selection (b) Clonal selection (c) Polyploidy Breeding (d) Mass selection

1988) Sexually reproducing organisms have two complete set of chromosomes in their somatic cells. This is called_____.

(a) Haploid (n) (b) Diploid (2n) (c) Triploid (3n) (d) Ploypoid

1989) The gametic cells have only one set of chromosome. This is called _____.

(a) Haploid (n) (b) Diploid (2n) (c) Triploid (3n) (d) Ploypoid

1990) An organism having more than two sets of chromosomes is called _____.

(a) Haploid (n) (b) Diploid (2n) (c) Triploid (3n) (d) Ploypoid

1991) The hybrid of wheat andrye is _____.

(a) Phaseolus mungo (b) Raphano brassica (c) Triticale (d) TMV-2

1992) _____ is an allotetraploid poruduced by colchicine treatment.

(a) Phaseolus mungo (b) Raphano brassica (c) Triticale (d) TMV-2

1993) Mustard gas and nitrous acid are examples for _____.

(a) Physical mutagens (b) Chemical mutagens (c) Biological mutagens

(d) None of the above

1994) The utilisation of induced mutation in crop improvement is called _____.

(a) Hybridization (b) Mutation breeding (c) Polyploidy breeding

(d) Mass selection

1995) Some achievements of mutation breeding are _____ is wheat variety produced by using gamma rays.

(a) Sharbati Sonora (b) Atomita 2 (c) Triticale (d) Raphano brassica

1996) _____ arice variety with saline tolerance and pest resistance produced by mutation breeding.

(a) Sharbati Sonora (b) Atomita 2 (c) Triticale (d) Raphano brassica

1997) Triticale is obtained by crossing

(a) Wheat and rice (b) Rice and black gram (c) Rice and Rye (d) Wheat and Rye

1998) The diploid number (2n) of chromosome in wheat (Triticum durum) is _____.

(a) 14 (b) 21 (c) 28 (d) 42

1999) The diploid number (2n) of chromosome in rye (Secale cereal) is _____.

(a) 14 (b) 21 (c) 28 (d) 42

2000) The diploid number (2n) of chromosom in Triticale is _____ .

(a) 14 (b) 21 (c) 28 (d) 42

2001) When breeding takes place between animals of the same breed, it is called _____.

(a) Outbreeding (b) Inbreeding (c) Cross breeding (d) Test breeding

2002) The cross between different breeds is called _____ .

(a) Outbreeding (b) Inbreeding (c) Cross breeding (d) Test breeding

2003) The enzymes which can cleave or split the phosphodiester bond within DNA is _____.

(a) Restriction Enzymes (b) DNA Ligases (c) Polymerase (d) None of the above

2004) The enzymes which help in ligating (joining) the broken DNA fragments are_____.

(a) Restriction Enzymes (b) DNA Ligases (c) Polymerase (d) None of the above

2005) Find out correct sequence of the basic steps involved in gene cloning
i. Selection and multiplication of recombinant host cell to get a clone
ii. Transfer of rDNA into bacterial host cell (Transformation)
iii. Insertion of the DNA fragment into a suitable vector (Plasmid) to make rDNA
iv. Expression of cloned gene in host cell.
v. Isolation of desired DNA fragment by using restriction enzymes

(a) i-ii-iii-iv-v (b) ii-iii-v-i-iv (c) v-iii-ii-i-iv (d) v-iv-ii -iii-i

2006) Dolly was born to her surrogate mother on

(a) 5th July 1996 (b) 5th June 1996 (c) 5th July 2006 (d) 5th July 1966

2007) Dr. Ian Wilmut and his colleagues developed Dolly at the Roslin Institute situated in _____.

(a) Italy (b) Russia (c) Scotland (d) Germany

2008) Dolly was created by somatic cell _____ technique.

(a) Hybridization (b) Nuclear transfer (c) Polyploidy Breeding (d) Selection

2009) Dolly lived for 6.5 years and died in _____ because of lung disease.

(a) 2000 (b) 2003 (c) 2006 (d) 2012

2010) First commercial production of human insulin by using rDNA technology was started in 1979 by the pharmaceutical company _____.

(a) Pfizer Inc (b) Eli Lilly (c) Johnson & Johnson (d) Roche

2011) Correction of genetic defects in _____ is not inheritable.

(a) Germ cells (b) Egg (c) Sperm (d) Somatic cells

2012) Correction of genetic defects in _____ is inheritable.

(a) Germ cells (b) Body cells (c) Brain cells (d) Somatic cells

2013) In humans, _____ carotene is required for the synthesis of Vitamin A.

(a) Alpha (b) Beta (c) Gamma (d) None of the above

2014) In Cow pea, Pusa Komal - Resistance to disease is a

(a) Hill bunt (b) Black rot (c) Bacterial blight (d) Leaf and stipe rust

2015) Dee-geo-woo, gen is a dwarf variety from

(a) India (b) Japan (c) Indonesia (d) China

2016) Atlas 66 is a _____ rich wheat variety.

(a) protein (b) fat (c) carbohydrate (d) vitamin

2017) The tool, which is not involved in Genetic engineering.

(a) Restriction enzymes (b) DNA ligases (c) Lysosome (d) Plasmid

2018) _____ wheat is produced from Sonora - 64 using gamma rays.

(a) Triticale (b) Sharbati Sonora (c) Atomitta (d) AK-10

2019) The chromosome number of hexaploid *Triticale* is _____
a. 24
b. 48
c. 21
d. 42

(a) d. 42

2020) _____ is not related to NIDDM.

(a) Insulin administration (b) Controlled by medicine (c) Obese
(d) Insulin action impaired

2021) _____ is a symptom of CHD.

(a) Glycosuria (b) Ischemia (c) Hyperglycemia (d) Polyphagia

2022) _____ help reduce blood sugar levels.

(a) Sweet potato (b) Tomato (c) Beetroot (d) Cane sugar

2023) _____ is not a method of treatment for cancer.

(a) Surgery (b) Immunotherapy (c) Vasectomy (d) Radiation therapy

2024) AIDS affects the _____ system.

(a) circulatory (b) nervous (c) immune (d) digestive

2025) _____ is not a symptom of AIDS.

(a) Increase in number of WBC (b) Lack of appetite (c) Weight loss
(d) Swelling of lymph nodes

2026) World AIDS Day is observed on _____

(a) 1st December (b) 15th December (c) 24th November (d) 1st May

2027) Obesity is not a risk factor for _____

(a) AIDS (b) diabetes (c) arthritis (d) CHD

2028) Excess hunger is called _____

(a) polyphagia (b) polydipsia (c) polyuria (d) glycosuria

2029) Sexually abused children show symptoms of _____

(a) frequent urinary infection (b) headache (c) sore head (d) migraine

2030) POCSO - Protection of Children from Sexual Offences Act came into force in the year _____ .

(a) 1985 (b) 2000 (c) 2002 (d) 2012

2031) International Day against Drug Abuse and Illicit Trafficking is observed on _____.

(a) June 26 (b) 4th February (c) 7th November (d) May 31

2032) Narcotic Drugs and Psychotropic Substances Act was introduced in the year _____.

(a) 1985 (b) 2000 (c) 2002 (d) 2012

2033) One of the following is not the behaviour of drug users.

(a) Lack of interest in personal hygiene, isolation, depression, fatigue and aggressive behaviour.

(b) Deteriorating relationship with family and friends.

(c) Excellent in academic performance. (d) Change in food and sleeping habits.

2034) Smoking causes inflammation of lung alveoli, decrease surface area for gas exchange and lead to the disease known as _____ .

(a) Hypoxia (b) Emphysema (c) Bronchitis (d) Cancer

2035) Carbon monoxide of tobacco smoke binds to haemoglobin of RBC and decreases its oxygen carrying capacity causing _____ in body tissues.

(a) Hypoxia (b) Emphysema (c) Bronchitis (d) Cancer

2036) The statutory warning found in all cigarette advertisements and packs is

(a) Quit smoking today to get happiness tomorrow

(b) Smoking is injurious to Health. (c) We need to burn calories daily, not tobacco.

(d) Tobacco is killing us, don't let it kill you.

2037) Anti Tobacco Act was passed on May 1st _____ .

(a) 1985 (b) 2000 (c) 2004 (d) 2012

2038) No Tobacco Day or World Anti-Tobacco Day is observed on_____.

(a) June 26 (b) 4th February (c) 7th November (d) May 31

2039) Diabetes Mellitus is characterised by increased blood _____ level.

(a) Glucose (b) Fat (c) Protein (d) Calcium

2040) Diabetes Mellitus is due to insufficient, deficient or failure of _____ secretion.

(a) Glucagon (b) Prolactin (c) Luteinising hormone (d) Insulin

2041) Type-1 Insulin Dependent Diabetes Mellitus (IDDM) is caused due to the destruction of _____ of the pancreas.

(a) Ducts tissue (b) Acinar Cells (c) α-Cells (d) β-Cells

2042) Type-1 Insulin Dependent Diabetes Mellitus (IDDM) is characterized by abnormally elevated blood glucose levels called _____.

(a) Polyuria (b) Polydipsia (c) Glycosuria (d) Hyperglycemia

2043) The condition of Increased urine output which leads to dehydration is known as _____ .

(a) Polyuria (b) Polydipsia (c) Glycosuria (d) Hyperglycemia

2044) The condition of loss of water leads to thirst resulting in increased fluid intake is known as _____ .

(a) Polyuria (b) Polydipsia (c) Glycosuria (d) Hyperglycemia

2045) The condition of excessive glucose excretion in urine is known as _____.

(a) Polyuria (b) Polydipsia (c) Glycosuria (d) Hyperglycemia

2046) The condition of excess hunger due to loss of glucose in urine is known as _____.

(a) Polyphagia (b) Polydipsia (c) Glycosuria (d) Hyperglycemia

2047) Type-2 Non-Insulin Dependent Diabetes Mellitus (NIDDM) is characterised by

(a) Normal insulin production but action is impaired

(b) Cells do not respond to insulin (c) No movement of glucose into cells

(d) All the above

2048) According to WHO recommendation, what are the two diagnostic criteria to confirm Diabetes mellitus?
i) In fasting level, if blood glucose is greater than 140 mg/dl
ii) In random level, if blood glucose is greater than 200 mg /dl

iii) In fasting level, if blood glucose is less than 100 mg/dl
iv) In random level, if blood glucose is between 80 and 120 mg /dl

(a) i and ii (b) i and iv (c) iii and iv (d) ii and iii

2049) Every 7 calories of excess consumption leads to 1 gm fat deposit and increase in body weight.

(a) 7 (b) 14 (c) 21 (d) 28

2050) Obesity is caused due to

(a) Genetic factors (b) Overeating and physical inactivity (c) Endocrine factors
(d) All the above

2051) Obesity is a positive risk factor in development of

(a) Hypertension (b) Diabetes (c) Coronary heart disease (d) All the above

2052) Coronary heart disease (CHD) is the most common form and is caused by deposition of _____ in the blood vessels.

(a) Sodium chloride (b) Iron (c) Cholesterol (d) Calcium

2053) Desirable level for blood cholesterol should be _____ for Indians.

(a) less than 200 g/dl (b) less than 200 mg/dl (c) between 200 and 239 mg/dl
(d) 240 mg/dl and above

2054) The risk of coronary heart disease increases slowly as blood cholesterol levels increases from _____ mg/dl.

(a) 20 to 99 (b) 100 to 149 (c) 150 to 199 (d) 200 to 300

2055) World Cancer Day is observed on _____ .

(a) June 26 (b) 4th February (c) 7th November (d) May 31

2056) National Cancer Awareness Day is observed on _____ .

(a) June 26 (b) 4th February (c) 7th November (d) May 31

2057) Immunotherapy is treatment that uses Biological response modifiers like _____ to activate the immune system and help in destroying the tumors.

(a) Nicotine (b) Antigens (c) Interferons (d) X-rays

2058) First Indian AIDS patient was identified in _____ .

(a) Chennai (b) Mumbai (c) Delhi (d) Kolkata

2059) Every year _____ is observed as the “World AIDS Day”.

(a) June 26 (b) 4th February (c) 7th November (d) 1st December

2060) AIDS is caused by HIV. Among the following, which one is not a mode of transmission of HIV?

(a) Transfusion of contaminated blood (b) Shaking hands with infected persons
(c) Sexual contact with infected persons (d) Sharing the infected needle

2061) This is the most common pancreatic endocrine disorder.

(a) AIDS (b) Carcinoma (c) Cancer (d) Diabetes mellitus

2062) It spreads through contact of body fluids or blood.

(a) Diabetes mellitus (b) Obesity (c) Carcinomas (d) AIDS

2063) Lack of co-ordination of body organs is due to

(a) Diabetes mellitus (b) Alcohol consumption (c) Drug addiction
(d) Tobacco smoking

2064) Bronchitis and pulmonary tuberculosis is due to

(a) Tobacco smoking (b) Alcohol consumption (c) Drug addiction
(d) Diabetes mellitus

2065) Emphysema is caused due to _____.

(a) Diabetes mellitus (b) Alcohol consumption (c) Drug addiction
(d) Tobacco smoking

2066) Liver cirrhosis is due to

(a) Diabetes mellitus (b) Alcohol consumption (c) Drug addiction
(d) Tobacco smoking

2067) Destruction of β-cells of the pancreas causes

(a) Drug addiction (b) Alcohol consumption (c) Type-1 diabetes mellitus
(d) Type-2 diabetes mellitus

2068) _____ or "good" cholesterol lowers risk of heart disease

(a) HDL (b) LDL (c) Salt (d) Sugar

2069) ____ can be controlled by diet, exercise and medicine.

(a) Drug addiction (b) Alcohol consumption (c) Type-1 diabetes mellitus
(d) Type-2 diabetes mellitus

2070) Choose the non-renewable energy resource

(a) Solar energy (b) Water (c) Minerals (d) Wind

2071) The Chipko movement originated in_____

(a) Uttar pradesh (b) Uttarakhand (c) Arunachal Pradesh (d) Madhya Pradesh

2072) Forest conservation Act was passed in_____

(a) 1952 (b) 1958 (c) 1978 (d) 1980

2073) The system of National parks and wild life sanctuaries was established in_____

(a) 1954 (b) 1980 (c) 1935 (d) 1988

2074) There are_____ biosphere reserves in India.

(a) 5 (b) 13 (c) 15 (d) 18

2075) The first National park to be established in India was_____

(a) Nilgiris (b) Gir forest (c) Corbett National park (d) Kaziranga sanctuary

2076) Wild life preservation society of India is located in_____

(a) Delhi (b) Uttarakhand (c) Dehradun (d) Chattisgarh

2077) The project for conservation of_____was launched in 1976

(a) tiger (b) elephant (c) lion (d) crocodile

2078) Choose the word not applicable to fossil fuels

(a) Hydrocarbons (b) Decomposition (c) Natural process (d) Inexhaustible

2079) India is the_____largest consumer of crude oil.

(a) fourth (b) seventh (c) third (d) second

2080) _____is not obtained from petroleum.

(a) Biogas (b) Diesel (c) Gasoline (d) LPG

2081) Medical waste is disposed by_____

(a) Sanitary land fill (b) Incineration (c) Composting (d) Segregation

2082) Water is denser than air and therefore can generate electricity at_____than wind turbines.

(a) lower speeds (b) high speeds (c) very low speeds (d) very high speeds

2083) _____is called fossil fuels as they are formed from the degradation of biomass buried deep under the earth.

(a) Petroleum (b) Kerosene (c) Mineral ores (d) Oil

2084) The use of natural resources in excess and unplanned way leads to _____ in the environment.

(a) Equilibrium (b) Steadiness (c) Balance (d) Imbalance

2085) _____provides a vast natural habitat for wild animals.

(a) Garden (b) Forest (c) Zoo (d) Museum

2086) _____is a threat to the economy, quality of life and future of the environment.

(a) Deforestation (b) Afforestation (c) Reforestation (d) Social forestry

2087) The Chipko movement was started in the year _____

(a) 1970 (b) 1973 (c) 1980 (d) 1983

2088) The Chipko movement originated in the _____ district of Uttar Pradesh (now Uttarakhand).

(a) Dehradun (b) Haridwar (c) Uttarkashi (d) Chamoli

2089) One of the following is NOT the effect of deforestation.

(a) Desertification (b) Soil erosion (c) Flourish of wild life

(d) Extinction of species

2090) Alteration of climatic conditions is one of the effects of _____

(a) Afforestation (b) Deforestation (c) Reforestation (d) Social forestry

2091) Van Mahotsav is an annual tree planting movement in India began in _____

(a) 1945 (b) 1947 (c) 1950 (d) 1960

2092) When was the National Forest Policy established?

(a) 1950 (b) 1952 (c) 1980 (d) 1988

2093) Forest Conservation Act came into force in the year _____

(a) 1950 (b) 1952 (c) 1980 (d) 1988

2094) Exploitation of wildlife resources has decreased global wildlife population by _____ 1970 and 2014.

(a) 5 (b) 10 (c) 32 (d) 52

2095) The Wildlife protection Act was established in _____

(a) 1950 (b) 1952 (c) 1972 (d) 1988

2096) Jim Corbett National Park (India's first National Park) is established in _____

(a) 1936 (b) 1952 (c) 1972 (d) 1988

2097) Jim Corbett National Park (India's first National Park) is located in _____

(a) West Bengal (b) Assam (c) Uttarakhand (d) Uttar Pradesh

2098) Total number of biosphere reserves in India is _____

(a) 8 (b) 10 (c) 12 (d) 15

2099) Human activities responsible for soil erosion is _____

(a) Deforestation (b) Farming (c) Mining (d) All the above

2100) One of the following is NOT the preventive way of soil erosion.

(a) Retaining the vegetation cover (b) Overgrazing by cattle

(c) Storage of runoff water (d) Contour ploughing

2101) One of the following can prevent soil erosion

(a) Deforestation (b) High velocity of wind (c) Vegetation cover (d) Runoff water

2102) Example for non-renewable energy resource_____

(a) Biofuel (b) Nuclear power (c) Hydroelectric energy (d) Geothermal energy

2103) Example for non-conventional energy resource _____

(a) Coal (b) Bio-fuel (c) Natural gas (d) Nuclear power

2104) Bio-fuel, biomass energy, geothermal energy, water energy (hydroelectric energy and tidal energy), solar energy, wave energy and wind energy are examples for_____energy resources.

(a) Renewable (b) Inexhaustible (c) Non - conventional (d) All the above

2105) The main component of Biogas _____

(a) Hydrogen (b) Methane (c) Carbon dioxide (d) Hydrogen sulphide

2106) _____is produced by the anaerobic decomposition of animal wastes (cow dung) and plant wastes.

(a) Natural Gas (b) LPG (c) Biogas (d) Shale gas

2107) The world's largest and tallest wind turbine is situated in _____

(a) Kanyakumari (b) California (c) Hawaii (d) Muppanthal

2108) _____ is available in abundance in our country and is free of cost

(a) Nuclear power (b) Solar energy (c) Tidal energy (d) Wind energy

2109) One of the following is NOT an energy efficient appliance

(a) CFL (b) LED (c) Solar water heater (d) Tungsten bulb

2110) _____present in E-Wastes causes asthmatic bronchitis.

(a) Mercury (b) Cadmium (c) Chromium (d) Lead

2111) _____present in E-Wastes causes damages to central and peripheral nervous system and affects brain development in children.

(a) Mercury (b) Cadmium (c) Chromium (d) Lead

2112) Unwanted, non-working and outdated electronic products become _____

(a) Bio-waste (b) Solid Waste (c) E-waste (d) Metal waste

2113) India is losing about _____ hectare of forest cover every year.

(a) 1 Million (b) 1.5 Million (c) 2 Million (d) 2.5 Million

2114) Wild life refers to the undomesticated animals living in their natural habitats

(a) forests (b) grasslands (c) desert (d) all the above

2115) _____ is a biosphere reserves in Tamilnadu.

(a) Nilgiris (b) Covai (c) Ooty (d) Chennai

2116) E-waste includes computer components which may be _____.

(a) 12% (b) 7% (c) 66% (d) 5%

2117) Medical wastes are disposed by _____ method.

(a) Segregation (b) Sanitary landfill (c) Incineration (d) Composting

2118) The fourth oldest dam in the world is _____.

(a) Methur Dam (b) Kallanai Dam (c) Manimutharu Dam (d) Papanasam Dam

2119) Solar cells are made up of _____ that converts sunlight directly into electricity.

(a) Silicon (b) copper (c) Lead (d) Iron

2120) _____ causes chronic damage to brain and respiratory system.

(a) Lead (b) Chromium (c) Mercury (d) Polyvinyl chloride

2121) The output of any application is commonly known as_____

(a) File (b) Folder (c) Disk (d) Output

2122) Multiple files are stored in a _____.

(a) Script Editor (b) Paint (c) Notepad (d) Folder

2123) Which button we use to select a required program?

(a) Program button (b) Program button (c) My Computer (d) Start Button

2124) Notes can be collected, edited and printed using_____

(a) Paint (b) Scratch (c) Notepad (d) LINUX

2125) Which one is used to draw and edit pictures?

(a) Notepad (b) Paint (c) Scratch (d) Windows OS

2126) Tocreate animations, cartoons and games easilywecan use_____

(a) Paint (b) Notepad (c) LINUX (d) Scratch

2127) How many parts are there in the Scratch Editor?

(a) 4 (b) 2 (c) 3 (d) 1

2128) In Scratch, the characters are known as_____

(a) Sprite (b) Stage (c) Element (d) Script

2129) Tochoose a block we use_____

(a) Script area (b) Block Menu (c) Block palette (d) Script Editor

2130) In Scratch, the background is referred as_____

(a) Stage (b) Script (c) Block (d) Sprite

2131) Which button is presses to run the script?

(a) Green flag (b) Red flag (c) Blue flag (d) Yellow flag

2132) Windows and LINUX are examples of_____

(a) Files (b) Folders (c) Operating Systems (d) Programs

2133) The device which helps in explaining the concepts easily through pictures is_____

(a) Visible Communication Device (b) Visible Cinema Device

(c) Visual Cinema Device (d) Visual Communication Device

2134) They accommodate multiple files or a single file _____.

(a) Sprite (b) Inbox (c) Folders (d) Scratch

2135) The output we get from any application is commonly referred as_____.

(a) Document (b) Folder (c) PDF (d) File

2136) The application to type notes is _____.

(a) Scratch (b) Paint (c) PDF (d) Notepad

2137) The application to draw and edit pictures is _____.

(a) PPT (b) Paint (c) PDF (d) Notepad

2138) The file format for capturing and sending electronic documents in exactly the intended format _____.

(a) PPT (b) Word (c) PDF (d) Page maker

2139) The software used to create animations, cartoons and games easily is _____.

(a) PPT (b) Paint (c) Scratch (d) Notepad

2140) Usually a cat appears as a sprite when the Scratch window is opened _____.

(a) Cursor (b) Cat (c) Arrow (d) Pointer

2141) 'Scratch' was developed in the _____ Institute of Technology (MIT) Media Lab.

(a) Microsoft (b) Massachusetts (c) Maxwell (d) Madras

2142) The device which helps in explaining the concepts easily through pictures is known as ' _____ Communication Device'.

(a) Art (b) Tele (c) Mobile (d) Visual

2143) Stage, Sprite and Script editor are the parts of _____.

(a) Paint (b) Notepad (c) Scratch (d) MS Word

2144) Stage is the _____.

(a) Block palette (b) Block menu (c) Script area (d) Background area

2145) Click the green flag at the top _____ corner.

(a) right (b) left (c) down (d) up

2146) From _____ menu choose the save option.

(a) File - > Save (b) Edit - > Save (c) Home - > Save (d) Insert - > Save

2147) The right pane also contains _____ additional tabs.

(a) One (b) Two (c) Three (d) Four

2148) The costume editor has _____ panes.

(a) One (b) Two (c) Three (d) Four

2149) MIT means _____.

(a) Massachusetts Institute Technology (b) Management Institute Technology

(c) Message Institute Technology. (d) Massachusetts Indian Technology.

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