

SPECIAL THANKS: MARIA SARWAR

Mcat 2012!!

Biology...

1. when chromosomes uncoil, the nucleoli are reformed and two nuclei are the two poles of the cell; stage is known as
 - a. prophase b. metaphase c. telophase d. anaphase
2. Mental retardation, short stature, broad face and squint eyes are the symptoms of;
 - a. down's syndrome b. klinefelter's syndrome c. turner's syndrome d. xyz syndrome
3. Chiasmata formation takes place during the process
 - a. crossing over b. attachment c. pairing d. leptotene
4. Healing of a wound and repair is the phenomenon which takes place by the process of
 - a. mitosis b. meiosis c. cell growth d. mitosis and meiosis
5. Which of the following is the main cause of cancer?
 - a. mutation b. controlled cell division c. regulated meiosis d. haploid division.
6. Covalent bond formed b/w two monosaccharides
 - a. glycosidic bond b. hydrogen bond c. peptide bond d. disulphide bond
7. Bond formed b/w glucose and fructose to form sucrose is
 - a. 1,4 glycosidic linkage b. 1,2 glycosidic linkage c. 1,6 glycosidic linkage d. 1,3 glycosidic linkage
8. In an amino acid in which the R-group is H, its name will be

a. alanine b.glycine c. leusine d. valine

9. Fatty acids are the organic compounds containing H, O, and one of the following; a.-COOH b.-NH₂ c.acyl d.sucrose

10. Posomes are used in gene therapy against

a.hypercholesterolemia b.coronary artery angioplasty c.cystic fibrosis
d.SCID

11. Genetically engineered cells are introduced into bone marrow cells in the treatment of

a. hypercholesterolemia b.coronary artery angioplasty c. cystic fibrosis
d.SCID

12. W.o.f is depleting and causing thinning of ozone

a. Cl b. Br c. CFC d. C

13. The typical environment of a particular organism population community is called

a.niche l.ecosystem c.habitat d.biosphere

14. Excessive enrichment of water with nutrients by human activity by which large amount of living organic matter grows is called

a. archeotrophication l.eutrophication c.enrichment d. low trophication

15. In an ecosystem, mycorrhiza is an example of

a.symbiosis b. predation c.commensalism d.parasitism

16. Successive stages of eating and being eaten by which recycling of materials and flow of energy takes place is called

a.food chain b.food web c.trophic level d.food link

17. The sex of individual of next generation always depends on one of the parent, who is

a.hetrogametic b.homogametic c.isogametic d.isomorphic

18. Which of the following will be haemophilic

a. X(H)X(h) b.X(H)X(H) c.X(h)Y d.X(H)Y

19. which of following is X-linked recessive trait in humans
a. hypophosphatemic rickets b. colour blindness c. baldness d. beard growth
20. Which trait in humans is an example of multiple alleles
a. eye colour b. skin colour c. ABO-Blood group d. Rh-blood group
21. a gene at one locus interacts with another gene at another locus, the interaction is known as
a. dominance b. multiple allelism c. pleiotropy d. epistasis
22. The combination of a pentose sugar with a base result in a compound known as
a. nucleotide b. nucleoside c. nucleic acid d. polynucleotide
23. an enzyme and substrate reacts through a special feature or site present in enzyme known as
a. building site b. active site c. catalyst site d. inhibition site
24. non-protein part which is covalently bonded with enzyme is
a. prosthetic group b. co-factor c. co-enzyme d. activator
25. one of the pyrimidine bases is absent in DNA
a. uracil b. thymine c. cytosine d. adenine
26. enzymes increases the rate of reaction by
a. increasing temperature b. decreasing pH c. decreasing activation energy d. increasing activation
27. which disease is caused by RNA enveloped virus and spread in epidemic form
a. influenza b. herpes simplex c. polio d. small pox
28. structure which contains the gene for drug resistance bacteria are
a. nucleoids b. mesosomes c. chromatin bodies d. plasmids
29. antibiotics that kill microbes immediately are called
a. microbistatic b. microbicidal c. biostatic d. chemotherapeutic

30. Which of the following fungi cause vaginal thrush
a.candida b.aspergillus c.tortula d.pencillium
- 31.body cavity of round worms is called
a.pseudocoelom b.coelom c.acoelom d.enteron
- 32.fasciola is endoparasite of
a.colon b.liver c.small intestine d.bile duct
- 33.trypanosoma is transmitted in human beings by
a.plasmodium b.anopheles c.housefly d.tse-tse fly
- 34.the nervous system develops from which of the following layer during embryonic development of animals
a.mesoderm b.ectoderm c.endoderm d.mesoderm and ectoderm
- 35.endosperm is formed as a result of
a.pollination b.self-pollination c.double fertilization d.cross pollination
36. Which of the following enzyme is released in an inactive form
a.amylase b.lipase c.enterokinase d.pepsin.
37. Which of the following hormones stimulate the secretion of pancreatic juice from pancreas in liver?
a.secretin b.pepsinogen c.gastrin d.both a+c
- 38.in large intestine vitamin K is formed by the activity of
a.symbiotic bacteria b.obligate parasite c.parasitic bacteria d.facultative bacteria
39. During swallowing of food which structure close nasal opening?
A.hard palate b.soft palate c.epiglotttis d.larynx
40. The right atrium of the heart usually receives the
a.deoxygenated blood b.oxygenated blood c.filtered blood d. non-filtered blood
- 41.the largest lymph duct called thoracic lymph duct drains into
a.subclavian vein b.renal vein c.pulmonary vein d.hepatic portal vein

42. which protein plays a major role in maintaining osmotic balance?

a. albumin b. globulin c. fibrinogen d. prothrombin.

43. The type of agranulocytes which stays in blood for a few hours and then enters tissues and become macrophages s

a. lymphocytes b. monocytes c. eosinophil d. basophils

44. Reabsorption of water by counter current multiplier mechanism takes place at

a. proximal tubule b. distal tubule c. collecting duct d. loop of henle

45. ADH helps in reabsorption of water by changing permeability of

a. proximal tubule b. distal tubule c. collecting duct d. loop of henle

46. During peritoneal dialysis, the dialysis fluid is introduced into which part of human body?

a. liver b. abdomen c. kidney d. pancreas

47. aldosterone helps in conservation or active absorption of

a. Na b. Ca c. K d. HCO_3^-

48 max reabsorption takes place in?

a. distal tubule b. villi c. cortical tissue d. proximal tubule

49. over-activity of sympathetic nervous system causes

a. disturbance of vision b. constipation c. decrease in blppd pressure

d. increase in heart rate

50. Which structures respond by impulse coming through motor neuron?

A. receptors b. responses c. effectors d. transduction.

51. Respiratory centre is located in

a. cerebrum b. cerebellum c. medulla d. hypothalamus

52. a neurological condition characterized by involuntary tremors, diminished motor activity and rigidity is called

a. epilepsy b. parkinson's disease c. alzheimer's disease d. cerebellar

tumours

53. A type of cells in human testes which produce testosterone is called

a.interstitial cells b.germ cells c.sertoli cells d.spermatocytes

54.breakdown of endometrium during mensuration is due to

a.increase in level of LH b.decrease in level of progesterone c.increase in level of progesterone d.increase in level of oestrogen

55. Oogonia are produced in the germ cells of

a.uterus b.cervix c.ovary d. a+b

56.which of the following diseases can be prevented through vaccination

a. AIDS and cancer b.malaria and AIDS c.typhoid and cancer d.measles and mumps

57.newly produced cells/individuals which are identical to each other are known as

a.genetically modified b.transgenic animals c.transgenic bacteria d.clones

58.which of the following is blood borne disease

a. hepatitis b.cholera c.influenza d.candidiasis

59.control of pests by natural enemies is known as

a.cultural control b.biological control c.pesticides control d.insecticides control

60. Which organelle is concerned with cell secretion

a.ribosomes b.golgi apparatus c.lysosomes d.mitochondria

61. Which contains peptidoglycan cell wall

a. penicillium b.bacterium c.adiantum d.polytrichum

62.inner membrane of mitochondria is folded to form finger like structure called

a.cristea b.vesicle c.matrix d.cisternae

63.the heterogeneous structure embedded in the matrix of interior chloroplast

a.grana b.stroma c.thylakoids d.cisternae

64.in which phase of cell division the metabolic activity of nucleus is high

a.mitosis b.interphase c.meiosis d.cell cycle

65.LH triggers

a.cessation of oogenesis b.breakdown of oocyte c.ovulation
d.development of zygote

66. Syphilis is caused by

a.HIV/AIDS b.pseudomonas pyogenes c.treponema pallidum d.neisseria

67. Muscles are made up of many cells which are reflected to as

a.myofilaments b.myofibrils c.sarcolema d.muscles fiber

68.the length of myofibril from one Z-band to the next is known as

a. sarcomere b.sarcolemma c.sarcoplasm d.muscle fiber

69.Ca ions released during a muscle fiber contraction attach with

a. myosin b.actin c.tropomyosin d.troponin

70. A muscle condition resulting from the accumulation of lactic acid and ionic imbalance is called

a.tetany b.muscle fatigue c.cramp d.tetanus

71.the pigment which stores oxygen in muscles

a.Hemoglobin .myoglobin c. myosin d.actinomyosin

72. Neurosecretory cells are present in which part of brain

a.hypothalamus b.midbrain c.pons d.cerebellum

73. Function of glucagon

a.glycogen→glucose b.glucose→glycogen c.glucose→lipids

d.glucose→proteins

74.addison's disease is caused due to destruction of

a.adrenal cortex b.pituitary adrenal axis c.adrenall medulla
d.hypothalamus

75. which group is made up of amino acids and their dervatives
a.vasopressin and ADH b.epinephrine and non-epinephrine c.oestrogen
and testosterone d.insulin and glucagon

76. Thymus gland is involved in the maturation of
a.platelets b.B-lymphocytes c.eosinophils d.T-lymphocytes

77. In passive immunity w.o.f component are injected into blood
a.antigens b.immunogens c.serum d.immunoglobulins

78.mucous membranes offer

a. physical barriers b. mechanical barriers c.chemical barriers
d.biological barriers

79. Immediate protection is obtained from

a.passive immunity b.active immunity c.vaccination d. natural active
immunity

80. Immunity in which T-cells recognize the antigens or microorganisms
is

a.tissue grafting b.phagocytosis c.cell mediated immunity/response
d.hormonal immunity/response

81. Oxidative phosphorylation, synthesis of ATP in the presence of
oxygen occurs in

a. all types of cells b. all anaerobic cells c.all primitive cells d.all aerobic
cells

82. Glycolysis is the breakdown of glucose into two molecules of
a.glycerate b.lactic acid c.pyruvate d.succinic acid

83. Before entering into kreb's cycle , the pyruvate is first

decarboxylated and oxidized into

a.alpha ketoglutaric acid b.citric acid c.glyceric acid d.acetic acid

Physics..!

84. An object having spherical shape of radius r experiences a retarding force F from a fluid of co-efficient of viscosity η when moving through the fluid with speed v . what is the ratio of retarding force to speed

a. $6\pi\eta r^2$ b. $6\pi\eta/r^2$ c. $6\pi\eta r$ d. $6\pi\eta/r$

85. For interference of light waves to take place, the required condition is

a. path difference of the light waves from the two sources must be large

b.the interfering waves must be non-coheren

c.the light waves may come from diff sources

d. the light waves may come from two coherent sources

86. The property of bending of light around an obstacle and spreading of light waves into geometric shadow of an obstacle is called

a. diffraction b.polarization c.quantization of light d.interference of light

87.the normal human eye can focus a sharp image of an object on the eye if the object is located at certain distance called

a. least point b.near point c.far point d.distinct point

88.a source of sound wave emits wave of frequency ' f '. if ' v ' is the speed of sound waves, then what will be the wavelength of the waves

a. v/f b. vf c. $(v-u)/f$ d. $(v-u)f$

89.spectrum of star light is measured and the wavelength of one of the lines as sodium's line is found to be 589nm. The same line has the

wavelength of 497nm when observed in the laboratory. This means the star is

- a. moving away from the earth
- b. moving towards the earth
- c. stationary
- d. revolving around the planet

90. What is the period of mass spring system during SHM if the ratio of mass to spring constant is $\frac{1}{4}$

- a. π
- b. 2π
- c. $1/\pi$
- d. $1/2\pi$

91. A wire is stretched by a force which causes an extension . the energy is stored in it only when:

- a. extension of wire is proportional to force applied
- b. cross section of wire remains constant
- c. the wire is not stretched beyond its elastic limit
- d. the weight of wire is negligible

92. Which statement is correct

- a. elasticity is that property of the body which enables the body to regain its original dimension
- b. elasticity is that property of the body that does not allows the body to return to its original shape
- c. elasticity is that property of the body which enables the body to regain its original dimension and original shape after the stress is removed
- d. elasticity is that property which obey's hooke's law

93 which expression is of rms speed of a gas having n number of molecules contained in the container

- a. $\text{sq. root}(v_1^2 + v_2^2 + v_3^2 + \dots + v_n^2)/n$
- b. $(v_1^2 + v_2^2 + v_3^2 + \dots + v_n^2)/n$
- c. $\text{sq. root}(v_1 + v_2 + v_3 + \dots + v_n)/n$
- d. $(v_1 + v_2 + v_3 + \dots + v_n)/n$

94. For a gas of volume V in its equilibrium state, if the pressure does

change with time then total K.E of gas is constant because

a. collision b/w gas molecules occur b. collisions b/w gas molecules occur linearly c. collision must be elastic d. collision must be inelastic

95. When the dimensions of both sides of an equation are equal then the equation is said to be

a. simultaneous b. homogenous c. instantaneous d. quadratic

96. Relation for wavelength

a. $\lambda = v/f$ b. $\lambda = cf$ c. $\lambda = v-u/f$ d. $\lambda = v-u*f$

97. 4200V is used in X-ray tube to accelerate electron the speed of X-ray

a. $2 \cdot 10^8$ b. $3 \cdot 10^8$ c. $2 \cdot 10^7$ d. $3 \cdot 10^9$

98. the shortest wavelength of continuous X-ray, emitted from an X-ray tube, depend on

a. current in tube b. voltage applied c. nature of tube d. at no. of target.

99. In which of the following detectors impulse is independent of particle

a. GM counter b. solid state detector c. wilson cloud chamber d. all

100. half life of radon

a. 1500 yr b. 23.5 min c. 3.8 days d. $4 \cdot 10^7$ 89

101. Half life of radioactive element is 1500 yrs the fraction of sample that left after 600 years

a. $\frac{1}{2}$ b. $\frac{1}{16}$ c. $\frac{1}{8}$ d. $\frac{1}{4}$

102. 2A current passes through a resistance to certain battery, if the resistance is replaced by double resistance current became

a. 2A b. 4A c. 6A d. 1A

103. Electron gun in CRO contains

a. filament, grid, anode, cathode b. cathode, anode, capacitor, screen

c. emitter, base, collector d. resistance, capacitor, inductor

104. Two long parallel wires repel each other. What would be the

reason

a.both carry current in same direction b.both carry current in opposite direction c.wire 1 has current but wire 2 has no current d.wire 2 has current wire 1 has no current

105. If the no of turns of a solenoid is doubled but then current in the coil and radius of the coil remains same, then what will be the magnetic flux density produced by the coil

a. it will be halved b.it increases by different amount at different points c.remains unchanged d.will be doubled

106. Which is used to estimate the circulation of blood in a patient?

a.C-14 b.C-12 c.P-32 d.Na-23

107. In order to double the amount of absorbed dose in gray what step should be taken

a.energy must be quartered b.energy must be halved c. energy must be increases 4 times d. energy must be doubled

108.which of the following is the proper way to study the sinusoidal waveform of the voltage

a.voltage is connected to X input and the time base is switched of
b. voltage is connected to Y input and the time base is switched on
c. voltage is connected to Y input and the time base is switched of
d. voltage is connected to X input and the time base is switched on.

109.what is the order of wavelength of X-rays

a. 10^{-6} b. 10^{-10} c. 10^{-3} d. 10^0

110. A laser beam is

a. non coherent b.mono chromatic c. both d.none

111. What is the torque acting on the pendulum of length L inclined at an angle θ

a. mgL b. $mgL\sin\theta$ c.0 d. $mgL\cos\theta$

112. Cathode rays are

- a. dependent on nature of gas
- b. depend on target material
- c. independent on nature of gas
- d. none

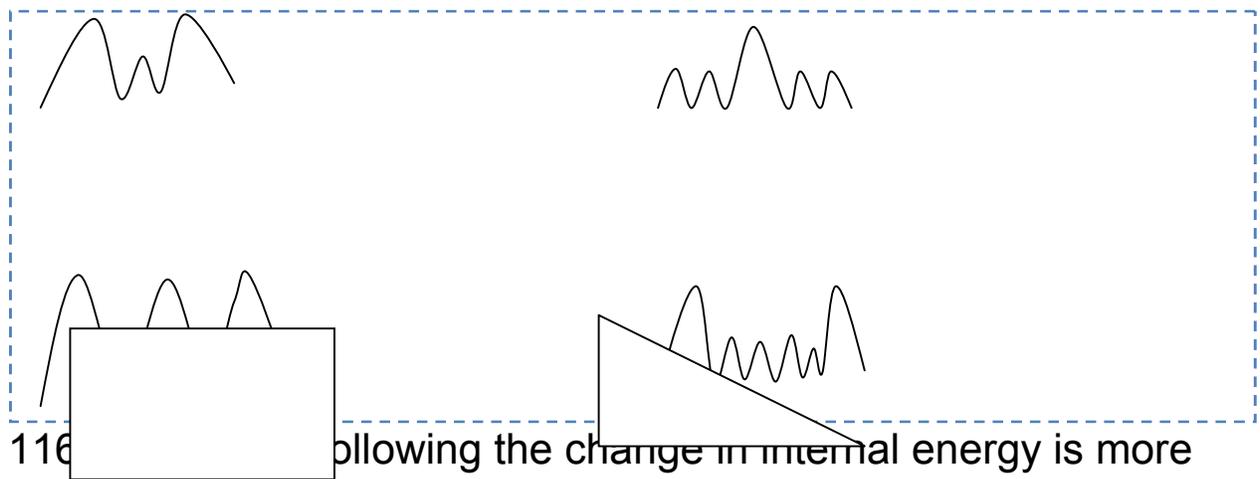
113. 1 degree is equal to

- a. $\pi/180$
- b. $180/\pi$
- c. $2\pi/180$
- d. $\pi/57.3$

114. if the resistance in the circuit is doubled then what's the current now

- a. half
- b. 0
- c. double
- d. constant

115. A monochromatic light of wavelength λ is used to produce the diffraction pattern through a single slit of width X . which one of the following represents the intensity distribution across the screen?



A.

- a. in system A
- b. in system B
- c. cannot be predicted
- d. change is zero in both. *(both are cyclic)

Chemistry..!!

117. One mole of any gas at STP occupies a volume of

a. 22.414dm³ b.23.414dm³ c.22.414cm³ d.20.414dm³

118.the relative abundance of the isotopes of an element can be determined by

a.X-rays b.mass spectrometry c.solvent extraction d.chromatography

119.if we know the mass of one substance, we can calculate the volume of other substance and vice versa. This is called

a. mass-mass relationship b.mass-mole relationship c.mass-volume relationship.mole-volume relationship

120.sublimation is used to purify

a.ammonium sulphate b.sodium chloride c.lead carbonate d.benzoic acid

121.the purity of a substance can be identify by

a. sublimation b.filteration c. solvent extraction d.chromatography

122. Which represents Avogadro's law

a. $V=RnT/P$ when T and n are constant b. $V=RnT/P$ when P and n are constant c. $V=RnT/P$ when T and P are constant d. $V=RP/nT$ when T,P and n are constant

123.the rms velocity of gas is inversely proportional to sq root of their

a. T b .molar mass c. P d. V

124.plasma consists of

a. ions and electrons b. electrons and neutral atoms c. ions and neutral atoms d. ions , electrons and neutral atoms

125.which type of force is present in gasoline

a. dipole-dipole forces b. dipole-induced dipole forces c. hydrogen bonding d. London dispersive forces

126. In the structure of NaCl , each Na⁺ ion is surrounded by Cl⁻ ions

a. 4 b.5 c.6 d.8

127. The charge of one gram of electron is
a. $1.7588 \times 10^{-11} \text{C}$ b. $1.7588 \times 10^{11} \text{C}$ c. $1.7588 \times 10^8 \text{C}$ d. $1.602 \times 10^{-19} \text{C}$
128. The I.E of hydrogen atom
a. zero b. 13.13kJ/mol c. 1313kJmol d.1313kJ/mol
129. Which quantum number tells us about orientation of orbitals
a. principle quantum number b. Azimuthal quantum number c. spin quantum number d. magnetic quantum number
130. The inter-ionic distance in a crystal of KCl is
a. 181pm b.314pm c.95pm d.300pm
131. The number of bonds in nitrogen molecule
a. one sigma and one pie b. one sigma two pie c. three sigma only d. two sigma and one pie
132. Which one has zero dipole moment
a. NH₃ b. CHCl₃ c.H₂O d.BF₃
133. A spontaneous process is
a. unidirectional and irreversible b. irreversible and real c. unidirectional and real d. all
134. Standard enthalpy of solution of ammonium chloride is kJ/mol
a. -25 b. +16.2 c. +4.98 d. +26.0
134. Unit of K_c for following reaction
 $\text{H}_2 + \text{I}_2 \rightleftharpoons 2\text{HI}$
a. $\text{mol}^2 \text{dm}^{-6}$ b. $\text{mol} \text{dm}^{-3}$ c. no unit d. $\text{mol}^{-2} \text{dm}^6$
135. 0.1 mole of acetic acid is dissolved per dm³ of solution, %age ionization of acetic acid is
a. 13 b. 15 c. 0.1 d. 1.3
136. Solubility of Ce(SO₄)₃
a. increase with increase in T b. decreases with increase in T c. remains

constant d. shows exceptional behavior

137. Sea water has 5.65×10^{-3} g of dissolved oxygen in one kg of water, concentration of oxygen in ppm is

a.7.69 b. 5.65 c.5.20 d.4.11

138. Metallic conduction involves the movement of

a. atoms b. ions c. electrons d. molecules

139. In an electrochemical series , elements are arranged on the basis of

a.pH scale b. pOH scale c. pKa scale d. hydrogen scale

140. The reaction which is responsible for the production of electricity in voltaic cell is

a. hydrolysis b. reduction c. oxidation d. redox

141. Glucose is converted into ethanol by the enzyme present in the yeast

a. urease b. invertase c. zymase d. sucrose

142. The rate of reaction involving ions can be studied by method

a. dilatometric b. refractometric c. electrical conductivity d. optical rotation

143. When one mole of gaseous hydrogen ions are dissolved in water to form infinitely dilute solution, amount of heat liberated is

a.-1075kJ/mol b.-499kJ/mol c. -1891kJ/mol d. -1562kJ/mol

144. Energy required to remove an electron from gaseous neutral atom is

a. electron affinity b. I.E c. lattice energy d. crystal energy

145. Which of the following carbonate of alkali metal is not stable towards heat and give oxide on decomposition

a. Rb_2CO_3 b. Na_2CO_3 c. Li_2CO_3 d. K_2CO_3

146.the presence of calcium is essential for normal development of

plants. An adequate supply of calcium appears to stimulate development of which part of plants

a. leaves b. fruit c. branches d. root hairs

147. Which of the following sulphate is not soluble in water

a. sodium sulphate b. potassium sulphate c. zinc sulphate d. barium sulphate

148. The trend in the densities of element of group 3A is

a. a gradual decrease. B. a gradual increase c. first increase then decrease d. first decrease then increase

149. White lead has one of the following properties

a. acidic b. crystalline c. neutral d. amorphous

150. Strongest acid among following

a. HF b. HCl c. HBr d. HI

151. The noble gas used in the radiotherapy for cancer

a. xenon b. radon c. krypton d. argon

152. Paramagnetic behavior is due to

a. paired electrons b. unpaired electrons c. protons d. neutrons

153. the geometry of complexes depends upon type of ----- taking place in the valence shell of central metal atom

a. protonation b. deprotonation c. hybridization d. dissociation

154. Acidified KMnO_4 acts as

a. reducing agent b. excellent precipitating agent c. oxidizing agent d. germicide

155. A gasoline of higher octane number can be obtained by

a. oxidative cleavage b. steam cracking c. thermal cracking d. catalytic cracking

156. Ethyne molecule is formed when two carbon atoms joined together to form a sigma bond only

a. sp-s overlap b. sp²-sp² overlap c. sp-sp overlap d. 2py-2py overlap

157. Symmetric alkanes can be produced by

a. Sabatier sender's reaction b. hydrogenation c. kolbe's electrolytic method d. reduction reaction

158. The catalyst used for the preparation of acrylonitrile

a. Al₂O₃ and NH₄Cl b. Cu₂Cl₂ and NH₄Cl c. Cu₂Cl₂ and NH₄OH

159. When hydrogen atom is removed from benzene , group left is called

a. alkyl group b. benzyl group c. phenyl group d. methyl group

160. Introduction of NO₂ in the benzene ring is called nitration. The nitration of benzene takes place when it is heated with a 1:1 mixture of _____ at 50-55°C

a. conc. HNO₃ and conc.H₂SO₄ b. conc.HNO₃ and conc.HCl c. conc.HNO₃ and conc. Acetic acid d. conc.HNO₃ and conc.H₃PO₄

161.during Sn₂ reaction , configuration of alkyl halide molecule is

a. remains same b. gets inverted c. depends upon carbon atom d. depends upon electronegativity of halide

162. Grignard reagent can be prepared by reaction of Mg with alkyl halide in the presence of

a. sodium lead alloy b. dry ether c. alcohol d. water

163. Methanol is prepared from CO and H₂. The catalyst used for this reaction is

a. ZnO+CoO₂ b. ZnO+CuO c. ZnO+Cr₂O₃ d. ZnO+Ag₂O

164. Ethanol reacts with ammonia to form ethyl amine. The catalyst used for this reaction is

a. ZnCl₂ b.ThO₂ c. C₅H₅N d. Cr₂O₃

165.dissociation constant of phenol is

a. 1.2×10^{-10} b. 1.2×10^{10} c. 1.3×10^{10} d. 1.3×10^{-10}

166. Dry distillation of mixture of calcium salt of acetic acid and formic acid results into formation of

a. acetaldehyde b. formaldehyde c. calcium acetate d. sodium acetate

167. Hydrolysis of cyano group by an aqueous acid results into

a. acid amide b. carboxylic acid c. cyano hydride d. formaldehyde

168. Brick red ppt. are formed when aldehyde reacts with

a. sodium borohydride b. sodium bisulphate c. felhing solution d. formaldehyde

169. The nature of amino acid Lysine is

a. neutral b. acidic c. basic d. amphoteric

170. Which of the following compounds in the form of aqueous solution will produce CO₂ on reaction with sodium carbonate

a. CH₃COOC₂H₅ b. C₂H₅COOC₂H₅ c. C₂H₅COOCH₃ d. C₂H₅CO-OH

171. Collagen an albumin is

a. derived proteins b. simple proteins c. polyamide d. polysaccharide

172. Urea is produced by reaction of liquid ammonia with

a. C b. CO c. CO₂ d. CaO

173. The calcium sulpho-aluminate is

a. Ca.Al₂O₃.3CaSO₄.6H₂O

b. 3Ca.Al₂O₃.CaSO₄.2H₂O

c. 3Ca.Al₂O₃.3CaSO₄.6H₂O

d. 3Ca.Al₂O₃.3CaSO₄.2H₂O

174. The coagulant used in raw water to precipitate suspended impurities is

a. caustic soda b. lime water c. soda ash d. alum

175. The whiteness of the recycled paper is improved by treating it with

a. sodium hydroxide b. super oxide c. normal oxides d. peroxides

