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CEE Based Model Questions

(Set-B)

CEE 200 Most Probable MCQs prepared for MBBS, BDS & BSc Nursing Aspirants

Instruction:

Marking Scheme: +1 mark for each correct answer and -0.25 mark for each incorrect answer.

Zoology
40 MCQs | 4 options each
Questions

1. Darwin's theory of natural selection primarily explains:
A. Inheritance of acquired characters
B. Differential survival and reproduction
C. Use and disuse of organs
D. Spontaneous generation

2. The forelimbs of a whale, bat and human are examples of:
A. Analogous organs
B. Vestigial organs only
C. Homologous organs
D. Artificial structures

3. Which evidence most directly supports evolution through transitional forms?
A. Fossil record
B. Blood pressure
C. Osmosis
D. Enzyme inhibition

4. A defining feature of mammals is the presence of:
A. Feathers
B. Mammary glands
C. Gills throughout life
D. A water vascular system

5. Cnidocytes are characteristic of:
A. Porifera
B. Cnidaria
C. Annelida
D. Mollusca

6. The body of an insect is typically divided into:
A. Head, thorax and abdomen
B. Cephalothorax and tail
C. Head and trunk only
D. Prothorax and abdomen only

7. The exoskeleton of arthropods is mainly made of:
A. Cellulose
B. Chitin
C. Keratin
D. Calcium pectate

8. Which animal is a cephalochordate?
A. Herdmania
B. Amphioxus
C. Petromyzon
D. Scoliodon

9. The excretory organs of insects are:
A. Nephridia
B. Flame cells
C. Malpighian tubules
D. Green glands

10. The larva of a frog is called:
A. Planula
B. Tadpole
C. Nauplius
D. Trochophore

11. The body cavity completely lined by mesoderm is a:
A. Pseudocoel
B. Coelom
C. Blastocoel only
D. Haemocoel in all animals

12. The main nitrogenous waste in adult humans is:
A. Ammonia
B. Uric acid
C. Urea
D. Creatine only

13. Bile is produced by the:
A. Gallbladder
B. Liver
C. Pancreas
D. Duodenum

14. Pepsin functions optimally in a strongly acidic environment created by:
A. Bile salts
B. Hydrochloric acid
C. Sodium bicarbonate
D. Salivary amylase

15. The enzyme that begins starch digestion in the mouth is:
A. Pepsin
B. Trypsin
C. Salivary amylase
D. Lipase

16. Most carbon dioxide in blood is transported as:
A. Dissolved COn only
B. Carbaminohaemoglobin only
C. Bicarbonate ions
D. Carbon monoxide

17. The respiratory surface of human lungs is formed mainly by:
A. Bronchi
B. Alveoli
C. Larynx
D. Pleura

18. During inhalation, the diaphragm:
A. Relaxes and domes upward
B. Contracts and flattens
C. Stops moving
D. Pushes air out directly

19. The vitamin essential for normal blood clotting is:
A. Vitamin A
B. Vitamin C
C. Vitamin D
D. Vitamin K

20. The mineral required in the greatest amount for haemoglobin formation is:
A. Iron
B. Iodine
C. Fluorine
D. Sodium

21. The hormone that stimulates red blood cell production is:
A. Erythropoietin
B. Calcitonin
C. Secretin
D. Melatonin

22. The AV valves prevent backflow from:
A. Arteries into ventricles
B. Ventricles into atria
C. Veins into capillaries
D. Aorta into pulmonary artery

23. The natural anticoagulant commonly found in mast cells is:
A. Heparin
B. Pepsin
C. Renin
D. Insulin

24. The blood vessel carrying oxygenated blood from lungs to heart is the:
A. Pulmonary artery
B. Pulmonary vein
C. Vena cava
D. Hepatic portal vein

25. The main site of glucose reabsorption in the nephron is the:
A. Proximal convoluted tubule
B. Descending loop only
C. Collecting duct
D. Renal pelvis

26. The counter-current mechanism helps concentrate urine mainly through the:
A. Loop of Henle and vasa recta
B. Glomerulus alone
C. Ureter
D. Renal capsule

27. The hormone that raises blood calcium level is:
A. Calcitonin
B. Parathyroid hormone
C. Insulin
D. Aldosterone

28. Thyroxine synthesis requires:
A. Iron
B. Iodine
C. Calcium
D. Potassium

29. The part of the eye with the highest density of cones is the:
A. Blind spot
B. Fovea centralis
C. Optic nerve
D. Ciliary body

30. The neurotransmitter released at the skeletal neuromuscular junction is:
A. Acetylcholine
B. Dopamine only
C. Thyroxine
D. Insulin

31. The functional unit of skeletal muscle contraction is the:
A. Sarcomere
B. Neuron
C. Nephron
D. Alveolus

32. The bone cells responsible for bone resorption are:
A. Osteoblasts
B. Osteoclasts
C. Osteocytes only
D. Chondroblasts

33. The first menstrual cycle is called:
A. Menopause
B. Menarche
C. Ovulation
D. Gestation

34. The placenta enables exchange between maternal and fetal blood while normally:
A. Mixing the two blood supplies freely
B. Keeping the circulations separate
C. Stopping oxygen transfer
D. Producing sperm

35. The hormone that maintains the uterine lining in early pregnancy is mainly:
A. Progesterone
B. Oxytocin
C. FSH
D. Adrenaline

36. A disease transmitted by the bite of an infected female sandfly is:
A. Kala-azar
B. Dengue
C. Cholera
D. Tetanus

37. Hepatitis B primarily affects the:
A. Kidney
B. Liver
C. Pancreas
D. Lung

38. The BCG vaccine is used mainly to protect against severe forms of:
A. Tuberculosis
B. Measles
C. Polio
D. Tetanus

39. The study of distribution of organisms in geographical areas is:
A. Ecology only
B. Biogeography
C. Histology
D. Ethology

40. A population's carrying capacity is the:
A. Maximum sustainable population size in an environment
B. Number of species in the world
C. Birth rate only
D. Total number of predators

Set 2: Botany
40 MCQs | 4 options each
Questions

41. The fluid mosaic model describes the structure of the:
A. Cell wall
B. Plasma membrane
C. Nucleolus
D. Middle lamella

42. Ribosomes are the sites of:
A. Lipid storage
B. Protein synthesis
C. ATP storage
D. DNA packaging only

43. The organelle containing hydrolytic digestive enzymes is the:
A. Lysosome
B. Chloroplast
C. Centrosome
D. Nucleolus

44. A prokaryotic cell lacks a:
A. Plasma membrane
B. Ribosome
C. Membrane-bound nucleus
D. Cytoplasm

45. The plant tissue responsible for upward water transport is mainly:
A. Phloem
B. Xylem
C. Cork
D. Epidermis

46. Casparian strips occur in the:
A. Endodermis of roots
B. Leaf cuticle
C. Pollen wall
D. Phloem sieve plate

47. The main function of root hairs is to increase:
A. Photosynthesis
B. Absorption surface
C. Seed dispersal
D. Pollen production

48. A typical dicot stem vascular bundle is:
A. Radial and closed
B. Conjoint, collateral and open
C. Scattered and closed
D. Without phloem

49. The tissue that forms the outer protective covering of young plant organs is:
A. Epidermis
B. Xylem
C. Cambium
D. Pith

50. The main function of lenticels is:
A. Seed production
B. Gas exchange in woody stems
C. Water absorption from soil
D. Sugar transport

51. In C_n plants, the first stable product of CO_n fixation is usually:
A. 3-PGA
B. Oxaloacetate
C. RuBP
D. Glucose

52. Photorespiration is favoured by:
A. Low temperature and high CO_n
B. High temperature and low CO_n
C. Darkness only
D. High oxygen absence

53. The immediate source of energy for most cellular work is:
A. DNA
B. ATP
C. Cellulose
D. $NADP_n$

54. The plant hormone that promotes cell division is:
A. Cytokinin
B. Abscisic acid
C. Ethylene only
D. Jasmonate only

55. A plant bending toward light demonstrates:
A. Geotropism
B. Phototropism
C. Hydrotropism
D. Thigmonasty

56. Water movement through a semipermeable membrane from higher to lower water potential is:
A. Diffusion of solute
B. Osmosis
C. Active transport
D. Translocation

57. The cohesion-tension theory explains:
A. Sugar synthesis
B. Ascent of sap
C. Pollen germination
D. Seed dormancy

58. The plant structure that develops into a seed after fertilization is the:
A. Ovary wall
B. Ovule
C. Stigma
D. Anther

59. The ovary of a flower develops into the:
A. Seed coat
B. Fruit
C. Embryo
D. Pollen grain

60. In a typical angiosperm embryo sac, the egg apparatus consists of:
A. One egg and two synergids
B. Three antipodals
C. Two polar nuclei only
D. Eight eggs

61. Pollen grains are produced in the:
A. Stigma
B. Anther
C. Ovary
D. Style

62. The main role of endosperm in seeds is to:
A. Form the pollen tube
B. Provide nourishment to embryo
C. Become the seed coat
D. Absorb minerals from soil only

63. A fruit formed without fertilization is called:
A. Apomixis
B. Parthenocarpic fruit
C. Aggregate fruit only
D. Drupe

64. A plant that completes its life cycle in one growing season is:
A. Annual
B. Biennial
C. Perennial
D. Epiphyte

65. The tissue culture technique is based on plant cell:
A. Totipotency
B. Mutation only
C. Respiration only
D. Plasmolysis

66. The bacterium commonly used to introduce genes into plants is:
A. Agrobacterium tumefaciens
B. Lactobacillus bulgaricus
C. Vibrio cholerae
D. Clostridium tetani

67. Rhizobium benefits leguminous plants by:
A. Fixing atmospheric nitrogen
B. Producing cellulose
C. Destroying root hairs
D. Releasing oxygen in darkness

68. Mycorrhiza is an association between roots and:
A. Fungi
B. Viruses
C. Insects
D. Algae only

69. The primary producer in a pond ecosystem is usually:
A. Zooplankton
B. Phytoplankton
C. Small fish
D. Frog

70. A species restricted to a particular geographic region is:
A. Cosmopolitan
B. Endemic
C. Invasive
D. Migratory

71. The process by which nitrogen gas becomes biologically available ammonia is:
A. Denitrification
B. Nitrogen fixation
C. Nitrification
D. Ammonification only

72. The pioneer organisms on bare rock during primary succession are often:
A. Large trees
B. Lichens
C. Fish
D. Mammals

73. A plant adapted to dry conditions is called a:
A. Hydrophyte
B. Xerophyte
C. Mesophyte
D. Halophyte only

74. The botanical name is written using:
A. A single vernacular word
B. Binomial nomenclature
C. Only a family name
D. A number code

75. The main component of fungal cell walls is:
A. Cellulose only
B. Chitin
C. Peptidoglycan
D. Lignin

76. The bacterial cell wall commonly contains:
A. Peptidoglycan
B. Chlorophyll
C. Chitin
D. Keratin

77. In bryophytes, the sporophyte is generally:
A. Fully independent and dominant
B. Dependent on the gametophyte
C. A seed-bearing plant
D. Without a capsule

78. The plant group with seeds but no flowers or fruits includes:
A. Mosses
B. Gymnosperms
C. Algae
D. Fungi

79. A monohybrid cross of two heterozygotes with complete dominance typically gives a phenotypic ratio of:
A. 1:1
B. 2:1
C. 3:1
D. 9:3:3:1

80. A mutation involving replacement of one nucleotide by another is a:
A. Point mutation
B. Polyploidy
C. Translocation only
D. Crossing over

Chemistry
50 MCQs | 4 options each
Questions

81. The number of significant figures in 0.00450 is:
A. 2
B. 3
C. 4
D. 5

82. The molality of a solution is the number of moles of solute per:
A. Litre of solution
B. Kilogram of solvent
C. Kilogram of solution
D. Litre of solvent

83. For an ideal gas at constant pressure, volume is directly proportional to:
A. Absolute temperature
B. Inverse temperature
C. Molar mass
D. Density only

84. The pH of a neutral aqueous solution at 25°C is approximately:
A. 0
B. 5
C. 7
D. 14

85. A strong acid in dilute aqueous solution:
A. Ionizes almost completely
B. Does not ionize
C. Always has pH 7
D. Cannot conduct electricity

86. For an exothermic reaction, increasing temperature generally shifts equilibrium toward:
A. Products
B. Reactants
C. No side in all cases
D. More catalyst

87. The rate of a chemical reaction is commonly increased by:
A. Lowering temperature always
B. Increasing effective collision frequency
C. Removing all reactants
D. Adding inert solid in every case

88. The unit of the rate constant for a first-order reaction is:
A. mol Ln^{1} sn^{1}
B. sn^{1}
C. L $moln^{1}$ sn^{1}
D. mol^{2} Ln^{2}

89. The standard electrode potential of the standard hydrogen electrode is defined as:
A. +1.00 V
B. –1.00 V
C. 0.00 V
D. +0.76 V

90. In an electrochemical cell, oxidation occurs at the:
A. Cathode
B. Anode
C. Salt bridge only
D. Voltmeter

91. The SI unit of electric charge is the:
A. Ampere
B. Coulomb
C. Volt
D. Ohm

92. The shape of an NH_n molecule is:
A. Trigonal planar
B. Trigonal pyramidal
C. Linear
D. Octahedral

93. The bond angle in a linear molecule with sp hybridization is:
A. 90°
B. 109.5°
C. 120°
D. 180°

94. Which molecule has a permanent dipole moment?
A. CO_n
B. CH_n
C. H_nO
D. BF_n

95. The strongest intermolecular attraction between ethanol molecules is:
A. Hydrogen bonding
B. Metallic bonding
C. Ionic bonding
D. Nuclear force

96. The oxidation state of sulfur in H_nSO_n is:
A. +2
B. +4
C. +6
D. -2

97. The oxidation state of nitrogen in NH_{nn} is:
A. -3
B. +3
C. +5
D. 0

98. Which element is an alkali metal?
A. Calcium
B. Sodium
C. Aluminium
D. Chlorine

99. Across a period, metallic character generally:
A. Increases
B. Decreases
C. Remains identical
D. Becomes unrelated to atomic structure

100. The principal ore of aluminium is:
A. Haematite
B. Bauxite
C. Galena
D. Cinnabar

101. The gas evolved at the cathode during electrolysis of aqueous NaCl is generally:
A. Chlorine
B. Hydrogen
C. Oxygen
D. Nitrogen

102. The chief ore of iron is:
A. Bauxite
B. Haematite
C. Malachite
D. Calamine

103. Temporary hardness of water is mainly due to bicarbonates of:
A. Sodium and potassium
B. Calcium and magnesium
C. Iron and copper only
D. Silver and gold

104. The chemical formula of washing soda is:
A. NaHCOn
B. NanCOn·10HnO
C. CaCOn
D. NaOH

105. The IUPAC name of CHnCHnOH is:
A. Methanol
B. Ethanol
C. Ethanal
D. Ethanoic acid

106. Benzene typically undergoes electrophilic substitution because it:
A. Is fully saturated
B. Retains aromatic stability
C. Has no pi electrons
D. Contains an ionic bond

107. The reagent used to test for unsaturation in an organic compound is often:
A. Bromine water
B. Limewater
C. Fehling solution only
D. Nessler reagent

108. The IUPAC name of CHnCHO is:
A. Ethanol
B. Ethanal
C. Ethanoic acid
D. Propanone

109. Which compound is a primary amine?
A. CHnNHn
B. CHnCONHn
C. CHnNOn
D. CHnCN

110. The polymer formed from ethene is:
A. PVC
B. Polyethene
C. Nylon-6,6
D. Terylene

111. The monomer used to manufacture PVC is:
A. Ethene
B. Vinyl chloride
C. Styrene
D. Tetrafluoroethene

112. Soap cleans oily dirt mainly by forming:
A. Crystals
B. Micelles
C. Ionic lattices only
D. Metallic films

113. The main acid present in vinegar is:
A. Citric acid
B. Acetic acid
C. Oxalic acid
D. Lactic acid

114. A primary standard should be:
A. Highly impure
B. Stable and high purity
C. Very volatile
D. Impossible to weigh

115. The endpoint of an acid-base titration is commonly detected using:
A. An indicator colour change
B. A magnet
C. A thermometer only
D. A barometer

116. Chromatography separates substances mainly based on differences in:
A. Nuclear charge
B. Distribution between stationary and mobile phases
C. Atomic number only
D. Melting point only

117. The functional group of an ether is:
A. R–O–R′
B. R–COOH
C. R–CHO
D. R–NHn

118. The major product of complete combustion of a hydrocarbon is:
A. CO and soot only
B. COn and HnO
C. Hn and On
D. Carbon and nitrogen

119. A solution that turns red litmus blue is:
A. Acidic
B. Basic
C. Neutral always
D. A salt only

120. The common oxidation state of alkaline-earth metals is:

A. −1
B. +1
C. +2
D. +3

121. The catalyst used in the Haber process is finely divided:

A. Iron
B. Nickel
C. Platinum
D. Copper

122. The main greenhouse gas among the following is:

A. On
B. COn
C. Ar
D. Ne

123. The acid responsible for acid rain is mainly formed from atmospheric:

A. SOn and nitrogen oxides
B. On and helium
C. Hydrogen and neon
D. Methane only

124. Which of the following is a colligative property?

A. Colour
B. Osmotic pressure
C. Odour
D. Viscosity only

125. For a dilute solution, relative lowering of vapour pressure depends on the:
A. Nature of container
B. Mole fraction of solute
C. Colour of solute
D. Shape of solute particles

126. The hybridization of carbon atoms in ethyne is:
A. sp
B. sp^2
C. sp^3
D. dsp^2

127. Which reagent is commonly used to distinguish aldehydes from most ketones?
A. Tollens' reagent
B. Sodium chloride
C. Dilute NaOH alone
D. Bromine water only

128. A buffer made from a weak acid and its salt works best when:
A. pH is close to pKa
B. pH is always 14
C. No conjugate base is present
D. The acid is completely absent

129. The rate of diffusion of a gas is inversely proportional to the square root of its:
A. Pressure
B. Molar mass
C. Temperature
D. Volume

130. Which allotrope of carbon conducts electricity well?
A. Diamond
B. Graphite
C. Fullerene only
D. Amorphous sugar

Physics
50 MCQs | 4 options each
Questions

131. The dimensional formula of work is:
A. $MLTn^2$
B. ML^2Tn^2
C. ML^2Tn^3
D. $MnLTn^1$

132. A body moving with constant speed in a circle has:
A. Zero acceleration
B. Constant velocity
C. Centripetal acceleration
D. No net force

133. The impulse delivered by a force equals the change in:
A. Kinetic energy
B. Momentum
C. Power
D. Displacement

134. The coefficient of friction is:
A. Measured in newtons
B. Dimensionless
C. Measured in joules
D. Always greater than one

135. For a body in equilibrium, the net force is:
A. Maximum
B. Zero
C. Equal to its weight always
D. Infinite

136. The centre of mass of a uniform circular ring lies:
A. On the circumference
B. At its centre
C. Outside the ring
D. At any random point

137. The gravitational potential energy near Earth's surface is:
A. GMm/r
B. mgh
C. ½mv²
D. F/t

138. The orbital speed of a satellite in a circular orbit increases when orbital radius:
A. Increases
B. Decreases
C. Becomes infinite
D. Has no effect

139. Bernoulli's principle relates pressure to fluid speed for ideal steady flow; where speed increases, static pressure generally:
A. Increases
B. Decreases
C. Stays fixed in all cases
D. Becomes zero

140. The SI unit of surface tension is:
A. N mn^{1}
B. N m
C. Pa m^{2}
D. J s

141. Heat transfer through a vacuum occurs by:
A. Conduction only
B. Convection only
C. Radiation
D. All three equally

142. During melting of a pure solid at its melting point, supplied heat mainly increases:
A. Temperature
B. Latent internal energy
C. Mass
D. Pressure necessarily

143. The efficiency of a real heat engine is always:
A. Greater than 100%
B. Equal to Carnot efficiency
C. Less than the corresponding Carnot limit
D. Independent of heat input

144. For an ideal gas, internal energy depends only on:
A. Pressure only
B. Volume only
C. Temperature
D. Container shape

145. The rms speed of gas molecules increases with:
A. Lower absolute temperature
B. Higher absolute temperature
C. Higher molar mass at fixed temperature
D. Lower kinetic energy

146. The frequency of a wave is the reciprocal of its:
A. Amplitude
B. Period
C. Wavelength
D. Speed

147. The phenomenon responsible for the blue colour of the sky is mainly:
A. Diffraction
B. Rayleigh scattering
C. Total internal reflection
D. Polarization only

148. A convex mirror always forms an image that is:
A. Real and inverted
B. Virtual, erect and diminished
C. Real and magnified
D. Inverted and same size

149. The critical angle for a medium relative to air becomes smaller when its refractive index:
A. Increases
B. Decreases
C. Equals zero
D. Has no relation

150. The resolving power of a microscope improves when the wavelength used is:
A. Longer
B. Shorter
C. Infinite
D. Unrelated to wavelength

151. The SI unit of magnetic flux is:
A. Tesla
B. Weber
C. Henry
D. Ampere

152. A charged particle moving parallel to a uniform magnetic field experiences magnetic force:
A. qvB
B. qvB/2
C. Zero
D. Infinite

153. The resistance of a metallic conductor generally increases with temperature because:
A. Carrier charge vanishes
B. Lattice vibrations increase
C. Its length always becomes zero
D. Electrons become protons

154. The equivalent resistance of three equal resistors R in parallel is:
A. 3R
B. R
C. R/3
D. R/9

155. The electrical energy consumed by a 100 W device in 2 hours is:
A. 0.2 kWh
B. 2 kWh
C. 20 kWh
D. 200 kWh

156. A fuse wire should have:
A. High melting point and low resistance
B. Low melting point and suitable resistance
C. Zero resistance
D. Very high tensile strength only

157. The drift velocity of electrons in a metal increases when:
A. Electric field increases
B. Temperature is always zero
C. The wire is disconnected
D. Charge carriers disappear

158. A transformer cannot operate with steady DC because:
A. DC has too high a frequency
B. Changing magnetic flux is absent after switching
C. Copper cannot conduct DC
D. It violates charge conservation

159. The electric field inside a conductor in electrostatic equilibrium is:
A. Infinite
B. Zero
C. Equal to surface charge
D. Always 1 V/m

160. The capacitance of a parallel-plate capacitor increases if plate separation:
A. Increases
B. Decreases
C. Becomes infinite
D. Has no effect

161. The energy of a photon is:
A. $E = mc$
B. $E = hf$
C. $E = h/f$
D. $E = f/h$

162. The de Broglie wavelength of a particle is:
A. $\lambda = p/h$
B. $\lambda = h/p$
C. $\lambda = hp$
D. $\lambda = h + p$

163. In the photoelectric effect, emission occurs only when light frequency is:
A. Below threshold
B. At or above threshold
C. Always zero
D. Independent of work function

164. The half-life of a radioactive isotope is the time for its undecayed nuclei to fall to:
A. One-quarter
B. One-half
C. Zero instantly
D. Double

165. An alpha particle is the nucleus of:
A. Hydrogen
B. Helium-4
C. Carbon-12
D. Deuterium

166. The charge of a beta-minus particle is:
A. +e
B. −e
C. Zero
D. +2e

167. Nuclear fission is the process in which a heavy nucleus:
A. Combines with another light nucleus
B. Splits into lighter nuclei
C. Emits visible light only
D. Loses all protons

168. The main source of energy in the Sun is:
A. Chemical combustion
B. Nuclear fusion
C. Nuclear fission
D. Gravitational friction only

169. A semiconductor's conductivity generally increases with temperature because:
A. Carrier concentration increases
B. Its band gap becomes infinite
C. All atoms become insulators
D. Its electrons stop moving

170. The logic gate whose output is 1 only when both inputs are 1 is:
A. OR
B. AND
C. NOT
D. NOR

171. The output of a NOT gate for input 1 is:
A. 1
B. 0
C. Undefined
D. Both 0 and 1

172. The work function of a metal is the minimum energy needed to:
A. Melt it
B. Remove an electron from its surface
C. Split its nucleus
D. Increase its mass

173. The phenomenon confirming wave nature of electrons is:
A. Compton scattering only
B. Electron diffraction
C. Nuclear fission
D. Thermionic emission

174. In an X-ray tube, X-rays are produced when fast electrons:
A. Pass through water
B. Decelerate rapidly at a target
C. Combine with neutrons
D. Move in a straight vacuum without collision

175. The SI unit of radioactivity is:
A. Gray
B. Sievert
C. Becquerel
D. Tesla

176. A p-n junction diode conducts strongly in:
A. Reverse bias
B. Forward bias
C. Both directions equally
D. No bias only

177. The output of an OR gate is 0 when:
A. Both inputs are 0
B. Both inputs are 1
C. Either input is 1
D. Only one input is 1

178. The energy released in a nuclear reaction is related to mass defect by:
A. $E = mc^2$
B. $E = mv$
C. $E = mgh$
D. $E = IR$

179. The SI unit of inductance is:
A. Tesla
B. Henry
C. Weber
D. Farad

180. In a series LCR circuit at resonance, the impedance is:
A. Maximum and purely capacitive
B. Minimum and equal to resistance
C. Infinite
D. Always zero

MAT
20 MCQs | 4 options each
Questions

181. Choose the closest meaning of 'concise':
A. Brief
B. Confusing
C. Careless
D. Length

182. Choose the word that does not belong:
A. Triangle
B. Square
C. Circle
D. Rectangle

183. If every nurse is trained and Mira is a nurse, which follows?
A. Mira is trained
B. All trained people are nurses
C. Mira is a doctor
D. No nurse is trained

184. Complete the sequence: 7, 14, 28, 56, __
A. 84
B. 98
C. 112
D. 120

185. Complete the sequence: 1, 4, 9, 16, 25, __
A. 30
B. 32
C. 36
D. 49

186. If BOOK is coded as CPPL by shifting each letter forward one, PAGE is coded as:
A. QBHF
B. QBGF
C. PBHF
D. QAHF

187. A person walks 4 m east, 4 m north, then 4 m west. Where are they relative to the start?
A. 4 m north
B. 4 m south
C. 4 m east
D. At the start

188. If today is Wednesday, what day will it be 10 days later?
A. Friday
B. Saturday
C. Sunday
D. Monday

189. A shirt marked Rs. 1,000 is discounted by 15%. Its sale price is:
A. Rs. 750
B. Rs. 800
C. Rs. 850
D. Rs. 900

190. If 3 pens cost Rs. 45, what is the cost of 7 pens at the same rate?
A. Rs. 90
B. Rs. 95
C. Rs. 105
D. Rs. 115

191. Find the missing number: 2, 5, 10, 17, 26, __
A. 35
B. 36
C. 37
D. 38

192. A is taller than B; B is taller than C. Who is shortest?
A. A
B. B
C. C
D. Cannot be determined

193. Which pair has the same relationship as doctor : hospital?
A. Teacher : school
B. Book : page
C. Pen : ink
D. Road : car

194. A cube is painted on all faces and cut into 27 equal smaller cubes. How many small cubes have paint on exactly three faces?
A. 4
B. 6
C. 8
D. 12

195. If the letters of CARE are rearranged alphabetically, the middle two letters are:
A. A and C
B. C and E
C. A and R
D. C and R

196. A clock gains 5 minutes every hour. How much does it gain in 6 hours?
A. 15 minutes
B. 20 minutes
C. 30 minutes
D. 35 minutes

197. A number divided by 4 gives 9. What is the number?
A. 13
B. 27
C. 36
D. 45

198. Select the next letter: B, E, I, N, T, __
A. X
B. Y
C. Z
D. A

199. A map scale is 1 cm : 5 km. Two towns are 7 cm apart on the map. Actual distance is:
A. 12 km
B. 25 km
C. 30 km
D. 35 km

200. In a group of 30 students, 18 are girls. What percentage are boys?
A. 30%
B. 35%
C. 40%
D. 60%

__Best Wishes__