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Biology mock test 5 2022-23

Time : 45 Min	Bio : Full Portion Paper	Marks : 400

101) Choose the correct statement. (NEET-II 2016)
A) All mammals are viviparous
B) All cyclostomes do not possess jaws and paired fins.
C) All reptiles have a three-chambered heart
D) All pisces have gills covered by an operculum

102) The rate of biomass production and the rate of production of organic matter during photosynthesis are known as
A) gross primary productivity, gross secondary productivity
B) total productivity, primary production
C) net primary productivity, secondary productivity
D) productivity, gross primary productivity

103) In mitochondrial electron transport system, for every two pairs of electrons that pass from NADH molecules through a sequential series of cytochrome enzymes to molecular oxygen what is generates?
A) 2 ATP
B) 3 ATP
C) 4 ATP
D) 6 ATP

104) In the resting muscle fibre tropomyosin partially covers which of the following site?
A) Ca binding sites on actin
B) Actin binding sites on myosin
C) Myosin binding sites on actin
D) Ca binding sites on troponin

105) What is the function of the gap junction?
A) To stop substance from leaking across a tissue
B) To separate two cells from each other
C) To performing cementing to keep neighbouring cells together
D) To facilitate communication between adjoining cells by connecting the cytoplasm for rapid transfer of ions, small molecules and some large molecules

106) Carbon dioxide is called a “greenhouse” gas. Why?
A) It emits light
B) It is involved in photosynthesis
C) It traps infrared radiations
D) It traps ultraviolet radiations

107) Fat is hydrolysed by enzyme lipase to yield
A) Fatty acid and amino acids
B) Glycerine and water
C) Glycerol and fatty acids
D) Glycerol and amino acids

108) Identify the bioferilizers which cause formation of nodules
A) Nostoc
B) Azospirilums
C) Rhizobium
D) Clostridium

109) Maintenance of internal favourable conditions, despite changes in external environment is
A) Steady state
B) Entropy
C) Homeostasis
D) Enthalpy

110) The highest number of species amongst the following in the world is represented by which of the following species?
A) fungi
B) lichens
C) algae
D) mosses

111) Gliding joint is present between which of the following?
A) Carpals
B) Knee
C) Carpal and metacarpal of thumb
D) Humerus and pectoral girdle

112) Dobson units are used to measure thickness of (NEET 2021)
A) troposphere
B) CFCs
C) stratosphere
D) ozone

113) A wolf has just eaten a lamb when tiger saw the wolf attacked it and consumed it. The tiger is in ecological terms
A) A producer
B) A primary consumer
C) A secondary consumer
D) A tertiary consumer

114) What was the duration of Mendel's hybridization experiments on garden peas plant?
A) 4 years
B) 5 years
C) 6 years
D) 7 years

115) Wheat variety resistant to hill bunt is
A) Pusa lerma
B) Pusa gaurav
C) Himgiri
D) Pusa shubhra

116) The pollination in Pinus is
A) Anemophilous
B) Entomophilous
C) Hydrophilous
D) Malscophilous

117) Ravi, who lived at sea level, had around 5 million RBC per cubic millimeter of his blood. Later when he lived at an altitude of 18,000 ft, showed around 8 million RBC per cubic millimeter of blood. This is an adaptation because
A) He had pollution free air to balance breathe
B) At high altitude he ate more nutritive food
C) At high altitude there is more UV radiation which enhances RBCs production
D) At high altitude O_2 level is less hence more RBCs were required to absorb enough oxygen

118) Which of the following is not the feature of gymnosperms?
A) Xylem with vessels
B) Distinct branches (long and short branches)
C) Perennial plants
D) Parallel venation

119) Which of the following is not a hereditary disease?
A) Cystic fibrosis
B) Cretinism
C) Thalassaemia
D) Haemophilia

120) Statement 1 : Xylem of gymnosperms consists of tracheids and no vessels.
Statement 2 : Phloem of gymnosperms consists of phloem parenchyma, companion cells and sieve tubes.
A) Both the statement 1 and statement 2 are true but the statement 2 is not a correct explanation of the statement 1
B) Both the statement 1 and the statement 2 are true and the statement 2 is a correct explanation of the statement 1
C) The statement 1 is true but the statement 2 is false
D) Both the statement 1 and statement 2 are false

121) The common cold causing viruses are
A) adenoviruses
B) coronaviruses
C) rhinoviruses
D) Both (B) and (C)

122) _____ is a long day plant.
A) Tobacco
B) Spinach
C) Chrysanthemum
D) Glycine max

123) Find the correct statements about human sperm.
A) Acrosome serves no particular function
B) The sperm lysins in the acrosome dissolve the egg envelope facilitating fertilization
C) Acrosome serves as a sensory structure leading the sperm towards the ovum
D) Acrosome has a conical pointed structure used for piercing and penetrating the egg, resulting in fertilization

124) A cell increases in volume if the external medium is
A) Hypo tonic
B) Isotonic
C) Hyper tonic
D) None of these

125) Which of the following is absent in the primary and secondary structure of stem of Pinus?
A) Phloem parenchyma
B) Mucilage duct
C) Companion cells
D) Sieve tubes

126) Nucleosomes are bounded by
A) RNA
B) Histone H_4
C) DNA
D) Histone H_3

127) Most widely accepted explanation for the ascent of sap in tree is
A) Roll of atmospheric pressure
B) Capillarity
C) Pulsating action of living cells
D) Transpiration cohesion theory of Dixon

128) _____ is not a physiological effect of auxin.
A) Promotes flowering
B) Initiates rooting in stem cuttings
C) Prevents fruit and leaf drop at early stages
D) Promotes bolting

129) Which of the following options gives the correct sequence of event during mitosis? (NEET 2017)
A) Condensation → Nuclear membrane disassembly → Arrangement at equator → Centromere division → Segregation → Telophase
B) Condensation → Crossing over → Nuclear membrane disassembly → Segregation → Telophase
C) Condensation → Arrangement at equator → Centromere division → Segregation → Telophase
D) Condensation → Nuclear membrane disassembly → Crossing over → Segregation → Telophase

130) Match the following diseases with the causative organism and select the correct option. (NEET 2020)

	Column-I		Column-II
A.	Typhoid	(i)	Wuchereria
B.	Pneumonia	(ii)	Plasmodium
C.	Filariasis	(iii)	Salmonella
D.	Malaria	(iv)	Haemophilus

A) A-(i), B-(iii), C-(ii), D-(iv)
B) A-(iii), B-(iv), C-(i), D-(ii)
C) A-(ii), B-(i), C-(iii), D-(iv)
D) A-(iv), B-(i), C-(ii), D-(iii)

131) Who observed first time the process of double fertilisation in plants?
A) John Ray
B) Strasburger
C) Kolreuter
D) S.G. Nawaschin

132) The characteristics common in both humans and adult frogs is
A) internal fertilization
B) four chambered heart
C) nucleated RBCs
D) ureotelic mode of excretion

133) According to widely accepted "fluid mosaic model" cell membranes are semi-fluid, where lipids and integral proteins can diffuse randomly. In recent years, this model has been modified in several respects. In this regard, which of the following statements is incorrect? (2005)
A) Proteins in cell membranes can travel within the lipid bilayer
B) Proteins can also undergo flip-flop movements in the lipid bilayer
C) Proteins can remain confined within certain domains of the membrane
D) Many proteins remain completely embedded within the lipid bilayer

134) Flower is a modified shoot as
A) Thalamus may elongate to show inter nodes
B) There is aggregation into inflorescence
C) It may have epicalyx
D) It bears essential organs

135) Choose the correct option: In the retina, bipolar neurons synapse with
A) sensory cells and amacrine cells
B) ganglionic cells and amacrine cells
C) sensory cells and pigment cells
D) sensory cells and ganglionic cells

136) Where the Kokkarebellur Bird Sanctuary is located?
A) Mandya
B) Hassan
C) Chamarajnagar
D) Mysore

137) Mark the wrong statements.
A) Sella turcica is a bony cavity where the pituitary gland is located.
B) Parathyroid hormone decrease the Ca^{2+} levels in blood.
C) The middle layer of adrenal cortex is zona fasciculate.
D) Thymosins play a major role in T cell differentiation.

138) Stem thorns help in
A) Protection from grazing animals
B) Climbing
C) Reduction in rate of transpiration
D) All of these

139) Who proposed phylogenetic classification of plants
A) Mehta
B) Linnaeus
C) Hutchinson
D) Bentham and Hooker

140) Pleitrophy is a condition in which a single gene
A) Controls more than one phenotype
B) Controls only one phenotype
C) Does not control any phenotype
D) None of these

141) The hormones not involved in sugar metabolism is
A) insulin
B) coortisone
C) glucagon
D) aldosterone

142) In the overall process of photosynthesis, what is the total number of CO_2, water, sugar and O_2 molecules utilized and produced?
A) 31
B) 19
C) 13
D) 12

143) During _____, Green revolution occurred in India.
A) 1960's
B) 1970's
C) 1950's
D) 1980's

144) If the concentration of DDT in water is 0.003 ppb then what is the most likely concentration of DDT in small fish?
A) 0.04 ppm
B) 0.003 ppm
C) 0.5 ppm
D) 2 ppm

145) "Triploblastic, unsegmented, acoelomate exhibiting bilateral symmetry and reproducing both asexually and sexually with parasitic forms." The above description is characteristic of phylum
A) Cnidaria
B) Ctenophora

C) Annelida
D) Platyhelminthes

146) A typical fat molecule is made up of (NEET-I 2016)
A) one glycerol and one fatty acid molecule
B) three glycerol and three fatty acid molecules
C) three glycerol molecules and one fatty acid molecule
D) one glycerol and three fatty acid molecules

147) _____ is responsible for the production of progesterone, (the hormone responsible for the maintenance of endometrium).
A) Uterus
B) Graafian follicle
C) Ovary
D) Corpus luteum

148) Mark the incorrect statements from the following.
a. Ovules generally differentiate a single megaspore mothe cell (MMC) in the chalazal region of the nucellus.
b. The MMC undergoes reduction division and produces four megaspores.
c. In a majority of angiosperms, one of the megaspore is degenerated while the other three remains functional.
d. The nucleus of the functional megaspore divides mitotically three time and form 2-nucleate, 4-nucleate and later 8-nucleate stages of the embryo sac.
e. These mitotic division are strictly free nuclear, that is nuclear division are strictly free nuclear, that is, nuclear division are immediately followed by cell wall formation.
A) b, c and d
B) a, b and c
C) c, d and d
D) a, c and e

149) Pneumatophores occur in
A) Banyan
B) Avicennia
C) Vanda
D) Mirabilis

150) Which of the following is a free living nitrogen fixing bacteria present in the soil?
A) Azotobacter
B) Pseudomonas
C) Rhizobium
D) Nitrosomonas

151) Aqueous humour is present
A) Infront of the cornea
B) Infront of the retina
C) Behind the conjunctiva
D) Infront of the lens

152) Statement 1: Saline water is not given to patients of hypertension.
Statement 2: Saline water can cause vomiting and may drop blood pressure suddenly causing cardiac arrest.
A) Both Statement 1 and Statement 2 are true but Statement 2 is not the correct explanation of Statement 1
B) Both Statement 1 and Statement 2 are true and the Statement 2 is correct explanation of the Statement 1
C) This Statement 1 is true, but the Statement 2 is false
D) Both Statement 1 and Statement 2 are false

153) Distinct micro villi are present on all of the following except
A) Cells lining the proximal convoluted tubules of the kidney
B) Absorptive cells of the intestinal epithelium
C) Follicular cells of the thyroid gland
D) Mucous cells of the salivary glands

154) In pteridophyta and gymnosperms, which cells are present in place of companion cell?
A) Idioblasts
B) Albuminous cells
C) Sclereids
D) None of the above

155) Statement 1: Consciousness is known as the defining property of living organisms.
Statement 2: All organisms, from the prokaryotes to the most complex eukaryotes can sense and respond to environmental stimuli.
A) Both statement 1 and statement 2 are true and statement 2 is the correct explanation of statement 1.
B) Both statement 1 and statement 2 are true but statement 2 is not the correct explanation of statement 1.
C) Both statement 1 and statement 2 are false.
D) statement 1 is true but statement 2 is false.

156) What is blood pressure?
A) the pressure of blood on the heart muscle
B) the pressure of the blood exerted on the walls of veins only
C) the pressure of blood on the walls of arteries only
D) the pressure of flowing blood exerted on the wall of arteries and veins

157) Choose the correct option: Most of our cells are surrounded by
A) blood
B) fluid equivalent to seawater in salt composition
C) interstitial fluid
D) pure water

158) In bisexual flowers when the gynoecium matures earlier than the androecium, it is called
A) Protandry
B) Protogyny
C) Autogamy
D) Heterogamy

159) Under which of the following condition a Gram positive bacteria turns Gram negative
A) Changed pH of medium
B) Defective staining technique
C) Aged bacterial culture
D) All the above

160) A selectable marker is used to
A) help in eliminating the non-transformants, so that the transformation can be regenerated
B) identify the gene for a desired trait in an alien organism
C) select a suitable vector for transformation in a specific crop
D) mark a gene on a chromosome for isolation using restriction enzyme

161) Mode of nutrition in Rhizopus is
A) Autotrophic
B) Saprophytic
C) Symbiotic
D) Parasitic

162) Seminiferous tubules are found in
A) Testis
B) Kidney
C) Ovary
D) Lung

163) Histiocyte is a connective tissue cell, the function of which is
A) Phagocytic
B) Secretion
C) Fibre production
D) Substanance

164) Fascicular, interfascicular and extra – stelar cambium together constitute
A) Lateral meristem
B) Apical meristem
C) Ground meristem
D) Intercalary meristem

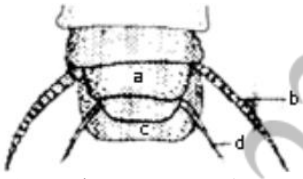
165) Which one of the following statements is true for the enzymes?
A) All proteins are enzymes
B) All enzymes are proteins
C) All enzymes are not proteins
D) All enzymes are vitamins

166) _____ phytohormones promotes male flowering and parthenocarpy.
A) Auxin
B) Gibberellin
C) Abscisic acid
D) Cytokinin

167) _____ reactions is an example of oxidative decarboxylation.
A) Conversion of citrate to isocitrate
B) Conversion of succinate to fumarate
C) Conversion of pyruvate to acetyl CoA
D) Conversion of fumarate to malate

168) The enzyme which catalyzes the photosynthetic C_4 cycle is
A) PEP carboxylase
B) RuDP carboxylase
C) Carbonic anhydrase
D) None of these

169) The diagram represents the reproductive organs of male cockroach. Choose the correct combination of labelling.



A) a-8th sternum, b-anal style, c-10th tergum d-anal cercus
B) a-anal style, b-anal cercus, c-10th tergum d-8th sternum
C) a-10th tergum, b-anal cercus, c- anal style, d-8th sternum
D) a-8th sternum, b-anal cercus, c-10th tergum d-anal

170) Under special conditions, the Parenchymatous cells of a plant tissue are totipotent which is an expression of _____ phenomena.
A) Differentiation
B) Death
C) Dedifferentiation
D) Growth

171) Choose the correct option: In human female the blastocyst
A) gets implanted into uterus 3 days after ovulation
B) forms placenta even before implantation
C) gets nutrition from uterine endometrial secretion only after implantation
D) gets implanted in endometrium by the trophoblast cells

172) Statement 1: Prokaryotic cells are compartmentalized by endomembranes.
Statement 2: Prokaryotic cells have mesosomes.
A) Both Statement 1 and Statement 2 are true but Statement 2 is not the correct explanation of Statement 1
B) Both Statement 1 and Statement 2 are true and the Statement 2 is correct explanation of the Statement 1
C) Both Statement 1 and Statement 2 are false
D) The Statement 1 is false but the Statement 2 is true

173) Thiamine is a kind of
A) Enzyme
B) Amino acid
C) Nitrogenous base of DNA
D) Vitamin of 'B' group

174) What is not true for genetic code? (2009)
A) It is nearly universal
B) It is degenerate

C) It is unambiguous
D) A codon in mRNA is read in a non-contiguous

175) The animals has separate circulatory pathways is
A) Whale
B) Shark
C) Lizard
D) Frog

176) There is a large diversity in the biological world and each organism has evolved its own mechanism to multiply and produce offspring. On which of the following factor the method of reproduction depends upon?
A) Internal physiology of organism
B) Habitat of organism
C) Will power
D) Both A and B

177) Point out the mismatched pair from the following.
A) Insulin - Gluconeogenesis
B) Glucagon - Glycogenolysis
C) Prolactin - Milk production in mammary glands.
D) Oxytocin -Contraction of uterine muscles

178) A column of water within xylem vessels of tall trees does not break under its weight due to
A) positive root pressure
B) lignification of xylem vessels
C) dissolved sugars in water
D) tensile strength of water

179) Which of the following is activated by a fall in glomerular filtration rate?
A) Adrenal medulla to release adrenaline
B) Juxtaglomerular cells to release renin
C) Adrenal cortex to release aldosterone
D) Posterior pituitary to release vasopressin

180) Zygospores are formed in
A) Penicillium
B) Puccinia
C) Alternaria
D) Mucor / Rhizopus

181) Cross between F_1 plant and recessive female plant is called
A) Test cross
B) Back cross
C) Out cross
D) Mutation

182) Statement 1 : Erythrocytic merozoites form gametocytes.
Statement 2 : Gametocytes are of two types - male and female.
A) Both the statement 1 and statement 2 are true but the statement 2 is not a correct explanation of the statement 1
B) Both the statement 1 and the statement 2 are true and the statement 2 is a correct explanation of the statement 1
C) The statement 1 is true but the statement 2 is false
D) Both the statement 1 and statement 2 are false

183) _____ is the transcriptionally inactive chromatin.
A) loosely packed chromatin
B) heterochromatin
C) Euchromatin
D) Both B and C

184) Read the following four statements (i), (ii), (iii) and (iv) and mark the right option having both correct statements.
(i) Z scheme of light reactions takes place in presence of PS I only.
(ii) Only PS I is functional in cyclic photophosphorylation.
(iii) Cyclic photophosphorylation results into synthesis of ATP and $NADPH_2$
(iv) Stroma lamellae lack PS II as well as NADP.
A) (i) and (ii)
B) (ii) and (iv)
C) (ii) and (iii)
D) (iii) and (iv)

185) Arrange the correct sequence of events in the origin of life.
I. Formation of protobionts
II. Synthesis of organic monomers
III. Synthesis of organic polymers
IV. Formation of DNA-based genetic systems
A) I, III, II, IV
B) I, II, III, IV
C) II, III, I, IV
D) II, III, IV, I

186) Argentaffin cells in human beings are found in which part of the body?
A) Liver
B) Stomach
C) Large intestine
D) Small intestine

187) Driving force of an ecosystem is
A) Biomass
B) Producer
C) Solar energy
D) Carbohydrates in plants

188) A typical parenchyma cell does not contain
A) Chloroplast
B) Nucleus
C) Central vacuole
D) Cell wall

189) _____ is the specific xerophytic adaptation.
A) Absence of stomata
B) Presence of spines
C) Presence of long tap root system
D) Presence of stipular leaves

190) _____ is not a GMO.
A) Golden rice

B) Bt brinjal
C) Tracy
D) Dolly

191) Mark the correctly matched pair.
A) Stratification - Population
B) Aerenchyma - Opuntia
C) Parthenium hysterophorus - Threat to biodiversity
D) Age pyramid - Biome

192) Statement 1: In Hydra, both pseudopodia and flagella occur in sensory cells.
Statement 2: Pseudopodia and flagella are for sexual reproduction in Hydra.
A) Both Statement 1 and Statement 2 are true but Statement 2 is not the correct explanation of Statement 1
B) Both Statement 1 and Statement 2 are true and the Statement 2 is correct explanation of the Statement 1
C) The Statement 1 is true, but the Statement 2 is false
D) The Statement 1 is false but the Statement 2 is true

193) Protonema occurs in the life cycle of (1990)

A) Riccia
B) Funaria
C) Anthoceros
D) Spirogya.

194) Oxygen carrying substances present in the root nodule is
A) Lectin
B) Phytohemagglutinin
C) Leghemoglobin
D) Hemoglobin

195) Which of the following tissues in mammals show the least capacity for regeneration?
A) Endothelium of blood vessels
B) Epithelial tissue of the skin
C) Skeletal tissue of long bones
D) Nervous tissue of brain

196) The carbon dioxide is transported via blood to lungs mostly (1995)
A) in combination with haemoglobin only
B) dissolved in blood plasma
C) in the form of bicarbonate ions
D) as carbamino-haemoglobin and as carbonic acid.

197) In the nymphal stage of cockroach the juvenile hormone is secreted by which of the following part?
A) Intercerebral gland cells
B) Corpora allata
C) Prothoracic gland
D) Corpora cardiaca

198) Sweet potato is modification of
A) Flowering axis
B) Root
C) Stem
D) Leaf

199) _____ steps in Krebs' cycle indicates substrate level phosphorylation.
A) Conversion of malic acid to oxalo acetic acid
B) Conversion of succinic acid to α-ketoglutaric acid
C) Conservation of Succinyl CoA to succinic acid
D) Conservation of succinic acid to malic acid

200) Utriculus is the part of internal ear or membranous labyrinth which forms
A) Lower chamber and is concerned with maintenance of equilibrium
B) Upper chamber and is concerned with perception
C) Upper chamber and is concerned with maintenance of equilibrium
D) Lower chamber and is concerned with transmission of sound waves