NEET UG (2024)
Biology
Quiz-4

(BOTANY)

SECTION - A

101. Hydrocolloid carrageen is found in the cell wall of
(1) Phaeophyceae
(2) Rhodophyceae
(3) Chlorophyceae
(4) Cyanophyceae

102. Consider the following statements
S I. The liverworts grow usually in moist, shady habitats such as banks of streams, marshy ground, damp soil, bark of trees and deep in the woods
S II. The leafy members of liverwort have tiny leaf-like appendages in two rows on the stem-like structures
Choose the **correct** option
(1) S I is true, S II is false
(2) S I is false, S II is true
(3) S I and S II are true
(4) S I and S II are false

103. **Statement-I:** *Cycas* is a dioecious plant
Statement-II: In *Cycas* megasporophylls together form true female cone.
(1) Both statement I and II are correct
(2) Statement I is correct but statement II is incorrect
(3) Statement I is incorrect but statement II is correct
(4) Both statement I and II are incorrect

104. In pteridophytes.
(1) Main plant body is sporophytic
(2) Root, stem and leaves all have xylem and phloem.
(3) Horsetails and ferns are included.
(4) All of the above

105. The mosses which form dense extensive mats on the soil prevents:
(1) Uprooting of trees
(2) Soil erosion
(3) Falling of leaves
(4) Evaporation of water from the soil

106. Which of the following statement is **incorrect** with respect to bryophytes?
(1) The plant body is thallus like, more differentiated than algae and attached to substratum by the help of rhizoids.
(2) The antherozoids are released in water for fertilization.
(3) Zygote undergoes meiotic cell division immediately.
(4) They have leaf like, stem like and root like structures

107. *Laminaria* and *Fucus* are examples of
(1) Green algae
(2) Brown algae
(3) Red algae
(4) Pteridophytes

108. In bryophytes, male and female sex organs are called _____ and _____ respectively.
(1) Microsporangia; macrosporangia
(2) Male strobili; female strobili
(3) Antheridia; archegonia
(4) Androecium; gynoecium

109. The heterosporous pteridophyte belonging to the class lycopsida is
(1) *Selaginella*
(2) *Psilotum*
(3) *Equisetum*
(4) *Pteris*

110. Which of the statements regarding haplontic life cycle is **incorrect**?
(1) Sporophytic generation is represented only by the one-celled zygote.
(2) There is no free-living sporophyte.
(3) Mitosis in the zygote results in the formation of haploid spores.
(4) The haploid spores divide mitotically and form the gametophyte

111. Match the column-I with column-II and choose the **correct** option.

	Column I		**Column II**
A	Amphibian of the plant kingdom	I	Sphagnum
B	Specialized structures in liverworts for asexual reproduction	II	Angiosperms
C	Monocotyledons and dicotyledons	III	Bryophytes
D	A plant which has capacity to holding water	IV	Gemmae

(1) A – III; B – IV; C – I; D – II
(2) A – III; B – IV; C – II; D – I
(3) A – IV; B – III; C – II; D – I
(4) A – III; B – II; C – IV; D – I

112. Which of the following pairs is **incorrectly** matched?
(1) Chlorophyceae – Major pigments are chl a and b.
(2) Phaeophyceae – Cell wall is made up of cellulose and algin.
(3) Chlorophyceae – Stored food is mannitol.
(4) Chlorophyceae – Cell wall is made up of cellulose.

113. Find out **incorrect** statement.
(1) Brown algae are vary in color from olive green to various shades of brown
(2) *Ectocarpus* is a simple filamentous form of brown algae
(3) Brown algae are found primarily in fresh water
(4) Mannitol is stored food in brown algae

114. Which of the following group of plant is being described by the given statements?
(i) They are plants in which the ovules are not enclosed by any ovary wall and remain exposed before and after fertilization.
(ii) The giant red wood tree *Sequoia* is one of the tallest tree species of the group.
(iii) The roots are generally tap roots.
(iv) They are heterosporous and they produce haploid microspores and megaspores.
(1) Algae
(2) Bryophytes
(3) Gymnosperms
(4) Pteridophytes

115. **Assertion**: Most algae show haplontic type of life cycle.
Reason: They show free living sporophyte
(1) Both assertion and reason are true and reason is the correct explanation of assertion.
(2) Both assertion and reason are true but reason is not the correct explanation of assertion.
(3) Assertion is true but the reason is false.
(4) Assertion is false but the reason is true

116. Isogamous mean
I. Both gametes are similar in size and non-motile
II. Both gametes are dissimilar in size and motile
III. Both gametes are similar in size and motile
IV. Both gametes are dissimilar in size and non-motile
Which of the statement(s) given above is/are **correct**?
(1) I and II (2) I and III
(3) II and IV (4) Only IV

117. Which of the following is an examples of haplo-diplontic?
(1) *Pinus and cycas*
(2) *Pteris and Ectocarpus*
(3) *Neem and mango*
(4) *Volvox and Fucus*

118. Elaborate mechanism of spore dispersal is feature of
(1) All Bryophytes
(2) Moss
(3) Angiosperm
(4) Gymnosperm

119. Spore develop inside_____ structure in Bryophytes –
(1) Flowers
(2) Capsule
(3) Sporangia
(4) Macrosporangia

120. Another name for Pollen grain is –
(1) Female gametophyte
(2) Male gametophyte
(3) Embryosac
(4) Microsporophyll

121. How many megaspores are functional after formation of four megaspore due to meiosis inside megasporangia in gymnosperm –
(1) All four
(2) None
(3) One
(4) Two

122. Which of the following statement(s) is/are **correct** about angiosperms?
(1) In angiosperms or flowering plants, the pollen grains and ovules are developed in specialised structure called flowers.
(2) They are divided into two classes: the dicotyledons and the monocotyledons.
(3) The male sex organ in a flower is the pistil or the carpel.
(4) Both (1) and (2)

123. Which of the following plants **do not** produce seeds?
(1) *Ficus and Neem*
(2) *Fern and Funaria*
(3) *Mustard and Ficus*
(4) *Cycas and Pinus*

124. Isogamous condition with flagellated gametes is found in algae –
(1) *Spirogyra* (2) *Volvox*
(3) *Fucus* (4) *Ulothrix*

125. In pteridophytes, sporophylls are borne on
(1) Sporophytes (2) Gametophytes
(3) Roots (4) Sporangia

126. Which one of the following is not a pteridophytes?
(1) *Polytrichum* (2) *Pteris*
(3) *Selaginella* (4) *Psilotum*

127. Unicellular rhizoids present in –
(1) Mosses (2) Brown algae
(3) Liverworts (4) Red algae

128. Branched stem present in-
(1) *Pinus*
(2) *Cedrus*
(3) Both (1) and (2)
(4) *Cycas*

129. Conifers are adapted to tolerate extreme environmental conditions because of
(1) Superficial stomata
(2) Thick cuticle
(3) Presence of vessels
(4) Broad hardy leaves

130. Which one of the following is responsible for peat formation?
(1) *Marchantia* (2) *Riccia*
(3) Liverworts (4) *Sphagnum*

131. Which one of the following shows isogamy with non-flagellated gametes?
(1) *Sargassum* (2) *Ectocarpus*
(3) *Ulothrix* (4) *Spirogyra*

132. How many organisms show diplontic life cycle?
Selaginella, Equisetum, Cycas, Cedrus, Ectocarpus, Fucus, Sequoia
(1) 7 (2) 5
(3) 4 (4) 6

133. Algae showing haplo-diplontic life cycle are
(1) *Spirullina and spirogyra*
(2) *Ectocarpus and polysiphonia*
(3) *Kelps*
(4) Both (2) and (3)

134. What is the number and position of insertions of flagella in rhodopyceae class of algae?
(1) 2 - 8, equal, apical
(2) 2, unequal, lateral
(3) 2 - 6, equal, lateral
(4) Flagella are absent in rhodophyceae

135. Which is **incorrect** about sporophyte of Liverwort?
(1) Product of meiosis
(2) Differentiated
(3) Dependent and parasitic
(4) Non-green and diploid

SECTION-B

136. How many organisms show haplo-diplontic life cycle?
Sphagnum, Volvox, Ulothrix, Marchantia, Polytrichum, Selaginella, Pinus, Cedrus, Ectocarpus, Polysiphonia
(1) 8 (2) 6
(3) 7 (4) 9

137. Precursor of seed habits first develop into –
(1) *Seleginella* and *Salvinia*
(2) Bryophytes
(3) Algae
(4) Gymnosperm

138. Select the **mismatch**
(1) *Ulothrix*– Filamentous
(2) *Volvox* – Oogamous
(3) *Sargassum* –Chl b
(4) *Sphagnum* –Antherozoid

139. Mark the **correctly** matched –
(1) *Polysiphonia* – Oogamous
(2) *Kelp* – Chl d
(3) *Spirogyra* – Motile male gamete
(4) *Chlorella* – Chl c

140. In which of the following dominant stage is not gametophyte –
(1) Algae (2) Pteridophyte
(3) Liverwort (4) Moss

141. In mosses the sex organs antheridia and archegonia are produced at the apex of the-
(1) Sporophyte
(2) Leafy shoots
(3) Protonema
(4) Spore

142. How many of the following is haploid – Antheridium, Archegonium, Gametophyte, Gamete, Rhizoids –
(1) Three
(2) Four
(3) Five
(4) Two

143. Cone or strobilus are present in-
(1) *Selaginella*
(2) *Equisetum*
(3) *Pinus*
(4) All of these

144. Mark the **correct** about - *Porphyra, Laminaria* and *Sargassum* –
(1) They are Algae
(2) Marine
(3) Are among the 70 species used as food
(4) All of these

145. Pyriform or pear shape gamete present in
(1) *Ectocarpus* (2) *Porphyra*
(3) *Chlamydomonas* (4) *Chlorella*

146. Coralloid roots having association with N_2 fixing bacteria are found in
(1) *Pinus*
(2) *Cedrus*
(3) *Sequoia*
(4) *Cycas*

147. Which of the following statement(s) is/are **correct** about pteridophytes?
(i) The main plant body is a sporophyte which is differentiated into true roots, stem and leaves.
(ii) The leaves are small (microphylls) as in ferns or large (macrophylls) as in Selaginella.
(iii) Genera like *Selaginella* and *Salvinia* which produce two kinds of spores–macro (large) and micro (small) spores, are known as heterospores.
(iv) Common examples are *Funaria, Polytrichum* and *Sphagnum*.
(1) Both (i) and (ii)
(2) Both (ii) and (iii)
(3) Both (i) and (iii)
(4) All of these

148. In brown algae food is stored in form of –
(1) Complex carbohydrate
(2) Laminarian starch
(3) Mannitol
(4) All of these

149. The inner layer of rigid cell wall in chlorophyceae is made up of
(1) Cellulose (2) Pectose
(3) Peptidoglycan (4) Hemicellulose

150. Which of the following group of plant is being described by the given statements?
(i) The plant body is thalloid.
(ii) Asexual reproduction takes place by fragmentation of thalli, or by the formation of specialized structures called gemmae.
(iii) The sporophyte is differentiated into a foot, seta and capsule.
(1) Liverworts (2) Moss
(3) Fern (4) Gymnosperm

(ZOOLOGY)

SECTION - A

151. Least toxic nitrogenous waste is
(1) Urea (2) Uric Acid
(3) Ammonia (4) All of the above

152. In crustaceans, the excretory functions are performed by
(1) Antennal glands
(2) Green glands
(3) Both (1) and (2)
(4) Malpighian tubules

153. Structural and functional unit of the kidney is
(1) Medulla (2) Nephridia
(3) Nephron (4) Hilum

154. Protonephridia is the excretory structures in ___
(1) Earthworms (2) Prawns
(3) Cockroaches (4) Planaria

155. The part through which ureter arteries and veins enter or leave the kidney is called _____
(1) Hilum (2) Renal papilla
(3) Medulla (4) Calyces

156. Some amount of _____ may be retained in the kidney matrix to maintain desired osmolality.
(1) Urea
(2) Uric Acid
(3) Ammonia
(4) Water

157. Malpighian tubules help in the removal of nitrogenous wastes and osmoregulation in
(1) Cockroaches (2) Prawns
(3) Earthworms (4) *Amphioxus*

158. _____ are the tubular excretory structures found in earthworms which helps to remove nitrogenous wastes and maintain a fluid and ionic balance.
(1) Nephridia (2) Green glands
(3) Antennal glands (4) flame cells

159. In cephalochordates like *Amphioxus*, _____ are primarily concurred with ionic and fluid regulation *i.e.*, osmoregulation.
(1) Antennal glands (2) Green glands
(3) Protonephridia (4) Malpighian tubules

160. Match column I with column II and choose the correct option.

	Column-I		Column-II
A.	Length of Kidney	(i)	absent in cortical nephrons
B.	Width of Kidney	(ii)	10-12 cm
C.	Thickness of Kidney	(iii)	5-7 cm
D.	Vasa recta	(iv)	2-3 cm

(1) A—(ii), B—(iii), C—(iv), D—(i)
(2) A—(ii), B—(iii), C—(i), D—(iv)
(3) A—(iii), B—(ii), C—(i), D—(iv)
(4) A—(i), B—(ii), C—(iii), D—(iv)

161. In Mammals, ammonia produced by metabolism is converted into ____**(A)**___ in ___**(B)**___ .
(1) (A) Urea (B) Liver
(2) (A) Urea (B) Blood
(3) (A) Uric Acid (B) Kidney
(4) (A) Carbondioxide (B) stomach

162. Find the **incorrect** statements
(A) Inside the kidney, there are two zones, an outer medulla and an inner cortex.
(B) Ammonia is the most toxic of nitrogenous waste and it can be removed with a minimum loss of water.
(C) Terrestrial adaptation necessitated the production of lesser toxic nitrogenous wastes for conservation of water.
(D) Mammals excrete urea.
(1) (A) and (D) (2) (A) and (B)
(3) (C) and (D) (4) (B) and (C)

163. Animals accumulate waste like urea, uric acid, CO_2, H_2O, ions like Na^+, K^+, Cl^-, phosphate, sulphate, etc., by
(1) Metabolic activities
(2) Excess ingestion
(3) Excretion
(4) Both (1) and (2)

164. Which one of the following is both an osmoregulatory as well as nitrogenous waste product?
(1) Carbondioxide (2) Urea
(3) Uric Acid (4) Ammonia

165. In PCT which substance is secreted?
(1) Glucose (2) Amino acid
(3) H^+ ions (4) Na^+ ions

166. In the following question, a statement of assertion is followed by a statement of reason.
Assertion: Glomerular filtration is also called as ultra filtration
Reason: Blood is filtered so finely through the membranes, that almost all the constituents of the plasma except the proteins pass onto the lumen.
(1) Both assertion and reason are correct and reason is the correct explanation for assertion.
(2) Both assertion and reason are correct but reason is not the correct explanation for assertion
(3) Assertion is correct but reason is incorrect
(4) Both assertion and reason are incorrect

167. Which substance is secreted by Distal Convoluted Tubule into the filtrate?
(1) Na^+ ions (2) K^+ ions
(3) Glucose (4) Amino acido

168. Podocytes are found in
(1) Visceral layer of Bowman's Capsule
(2) Parietal layer of Bowman's Capsule
(3) Glomerulus
(4) P.C.T.

169. The ascending limb of loop of Henle continues as the highly coiled tubular structure called as
(1) DCT
(2) PCT
(3) Malpighian corpuscle
(4) Peritubular capillary

170. State **True (T)** and **False (F)** for the following statements.

(A) The amount of the filtrate formed by-the kidneys per minute is called GFR.

(B) GFR in a healthy individual is approximate 125 ml/hour.

(C) The nitrogenous wastes are reabsorbed by active transport whereas substances like glucose, amino acids, Na^+ etc in the filtrate are reabsorbed passively in DCT.

(D) Tubular secretion helps in the maintenance of ionic and acid base balance of body fluids.

(1) (A)—(T), (B)—(F), (C)—(F), (D)—(T)
(2) (A)—(T), (B)—(T), (C)—(T), (D)—(F)
(3) (A)—(F), (B)—(F), (C)—(T), (D)—(T)
(4) (A)—(F), (B)—(T), (C)—(F), (D)—(T)

171. A fall in GFR can activate the JG cells to release _____ which can stimulate the glomerular blood flow and bringing GFR back to normal

(1) ADH (2) Aldosterone
(3) Rennin (4) Renin

172. Angiotensin II is a ___A___ and it ___B___ the blood pressure.

(1) A = vasoconstrictor, B = decreases
(2) A = vasoconstrictor, B = increases
(3) A = vasodilator, B = decreases
(4) A = vasodilator, B = increases

173. **Statement I:** Collecting Duct is a long duct that extends from the cortex of the kidney to the inner parts of the medulla.

Statement II: The Henle's loop and vasa recta plays a significant role in producing concentrated urine in Mammals.

(1) Both statement I and II are correct.
(2) Statement I is correct but statement II is incorrect.
(3) Statement I is incorrect but statement II is correct
(4) Both statement I and II are incorrect.

174. Human kidneys can produce urine nearly _____ times concentrated than the initial filtrate formed.

(1) Two (2) Three
(3) Four (4) Six

175. Columns of Bertini or renal columns found in kidneys are found as the extension of

(1) Cortex in medulla
(2) Medulla in cortex
(3) Cortex in pelvis
(4) Medullary pyramids in calyces

176. Which is a Vasodilator?

(1) Serotonin (2) ANF
(3) Angiotensin -II (4) ADH

177. How many statements are correct w.r.t juxta-me dullary nephrons?

(a) Loop of Henle is too short
(b) Loop of Henle runs deep into the medulla.
(c) Loop of Henle do not go deep into the medulla.
(d) Loop of Henle is very long.
(e) Vasa recta is absent.
(f) Vasa recta is prominent.

(1) Three (2) Four
(3) Two (4) One

178. Henle's loop is __A__ whereas vasa recta is ___B___

(1) A = 'C' shaped, B = 'U' shaped
(2) A = 'U' shaped, B = 'C' shaped
(3) A = Hairpin shaped, B = U shaped
(4) A = 'U' shaped, B = Hairpin shaped

179. Read the following statements and choose the correct option

I. Each nephron has two parts- outer cortex and inner medulla.
II. Glomerulus is a tuft of capillaries formed by afferent arteriole- a fine branch of renal artery.
III. Blood from the glomerulus is carried away by an afferent arteriole.

(1) Statement I and II are correct and statement III is incorrect
(2) Statement II and III are correct and Statement I is incorrect
(3) Statement I and III are incorrect but statement II is correct
(4) All the statements are correct

180. Nearly all of essential nutrients and 70-80 percent of electrolytes and water are reabsorbed in

(1) PCT (2) DCT
(3) Collecting duct (4) Henle loop

181. Conditional reabsorption of __(A)__ and __(B)__ takes place in __(C)__

(1) A—Na^+, B—H_2O, C—DCT
(2) A—Na^+, B—H_2O, C—PCT
(3) A—Na^+, B—NH_3, C—PCT
(4) A—K^+, B— H_2O, C—PCT

182. Aldosterone is a hormone which
(1) Increases the excretion of Na^+ ions in urine
(2) Increases the excretion of H_2O in urine.
(3) Increases the reabsorption of K^+ ions in filtrate.
(4) Increases the re-absorption of Na^+ in the filtrate

183. Medullary gradient is mainly caused due to the presence of _____
(1) NaCl and urea
(2) NaCl and glucose
(3) Glucose and urea
(4) Ammonia and glucose

184. The amount of urea excreted by a human is-
(1) 50-60 gm (2) 25-30 gm
(3) 10-15 gm (4) 100-120 gm

185. Osmolarity in the outer cortex and inner medulla region is _____
(1) 300 $mOSmolL^{-1}$ and 900 $mOSmolL^{-1}$
(2) 600 $mOSmolL^{-1}$ and 300 $mOSmolL^{-1}$
(3) 1200 $mOSmolL^{-1}$ and 300 $mOSmolL^{-1}$
(4) 300 $mOSmolL^{-1}$ and 1200 $mOSmolL^{-1}$

SECTION: B

186. During transport of substances, small amounts of urea enter
(1) Thin segment of ascending limb of Henle's loop.
(2) Thick segment of the ascending limb of Henle's loop
(3) Vasa recta to the descending limb of Henle's loop
(4) Peritubular capillaries to the Juxtaglomerular apparatus.

187. Which is **incorrect** in the following statements
(1) In Uremia, urea levels become high in blood of a person
(2) In Glomerulonephritis stones of oxalates are formed in kidney
(3) In Uremia, Haemodialysis can be done as a treatment
(4) Kidney transplantation is the Ultimate method of correction of Renal failure

188. The Proximal Convoluted Tubule is lined by the:
(1) Simple cuboidal epithelium
(2) Simple columnar epithelium
(3) Simple cuboidal brush bordered epithelium
(4) Simple columnar brush bordered epithelium

189. Urea is transported into the interstitium by _____
(1) PCT (2) DCT
(3) Henle's loop (4) Collecting Tubule

190. Flagellar movements are observed in
(1) WBCs (2) Spermatozoa
(3) Fallopian tube (4) Trachea

191. Which of the following is also known as anti-diuretic hormone?
(1) Vasopressin
(2) Aldosterone
(3) Adrenaline
(4) oxytocin

192. What will happen if the stretch receptors of the urinary bladder wall are totally removed?
(1) There will be no micturition
(2) Urine will not be collected with in bladder
(3) Micturition will continue
(4) Urine will continue to collect normally in bladder.

193. Indication of diabetes mellitus is/are.
(1) The presence of glucose in urine
(2) The presence of Ketone bodies in urine
(3) The presence of amino acid in urine.
(4) Both (1) & (2)

194. **Statement I:** Our lungs remove 200 ml of CO_2 per minute.
Statement II: Sebaceous glands eliminate cholesterol, degraded steroid hormone, vitamins etc.
(1) Both statement I and II are correct.
(2) Statement I is correct but statement II is incorrect.
(3) Statement I is incorrect but statement II is correct.
(4) Both statement I and II are incorrect.

195. **Assertion:** When a person drinks a lot of water, diluted and more urine is produced.
Reason: Drinking excessive water suppresses release of ADH, which further prevents diuresis.
(1) Both assertion and reason are correct and reason is the correct explanation for assertion.
(2) Both assertion and reason are correct but reason is not the correct explanation for assertion
(3) Assertion is correct but reason is incorrect
(4) Both assertion and reason are incorrect

196. If the diameter of efferent arteriole is made double than that of afferent arteriole what will happen:
(1) GFR will be increased 2 times.
(2) GFR will be increased 20 times.
(3) Glomerular filtration will be slow or absent
(4) Glomerular filtration will not get affected

197. Passage of ova though the female reproductive tract is facilitated by
(1) Ciliary movement
(2) Amoeboid movement
(3) Muscular movement
(4) Tentacles movement

198. The two cells of the body which shows pseudopodial movement are
(1) RBCs and WBCs
(2) WBCs and macrophages
(3) RBCs and macrophages
(4) Liver cells and WBCs

199. Skeletal muscles are closely associated with the __A__ components of the body, they have __B__ appearance under the microscope and hence are called __C__ muscles.
Choose the connect options to fill A, B and C
(1) A—muscular, B—shaped, C—striated
(2) A—visceral, B—striated, C—striated
(3) A—skeletal, B—striped, C—striated
(4) A—microfibrillar, B—skiped, C—striated

200. Read the following statements and mark **True (T)** and **False (F)**
(A) Muscle is a specialised tissue of mesodermal origin
(B) About 30-40 percent of the body weight of a human adult is contributed by muscle.
(C) Based on their location there are two types of muscles.
(D) Skeletal muscles are closely associated with the skeletal components and they are involuntary muscle.
(1) (A)—(T), (B)—(F), (C)—(F), (D)—(F)
(2) (A)—(T), (B)—(T), (C)—(T), (D)—(T)
(3) (A)—(F), (B)—(F), (C)—(T), (D)—(T)
(4) (A)—(T), (B)—(F), (C)—(T), (D)—(F)

Solution

107. (2)

Laminaria and *Fucus* are examples ofbrown algae.

CLASS 11th NCERT Pg.32

108. (3)

The male sex organ is called antheridium. They produce biflagellate antherozoids. The female sex organ called archegonium is flask-shaped and produces a single egg.

CLASS 11th NCERT Pg.35

109. (1)

Lycopsida -*Selaginella, Lycopodium*

CLASS 11th NCERT Pg.38

110. (3)

Meiosis in the zygote results in the formation of haploid spores.

CLASS 11th NCERT Pg.42

111. (2)

* Bryophytes are called as the amphibian of the plant kingdom because these plants can live in soil but are dependent on water for sexual reproduction.
* Gemma is specialised structure in liverworts for asexual reproduction. Monocotyledons and dicotyledons are two groups of angiosperms. Species of *Sphagnum*, a moss provide peat that have been long been used as a fuel.

CLASS 11th NCERT Pg.35

112. (3)

Chlorophyceae – Stored food is starch.

CLASS 11th NCERT Pg. No.33

113. (3)

Brown algae are found primarily in marine water.

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114. (3)

Gymnosperms

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115. (3)

They show free living gametophyte.

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116. (2)

These gametes can be flagellated and similar in size (as in *Ulothrix*) or non-flagellated (non-motile) but similar in size (as in *Spirogyra).*

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117. (2)

- Gymnosperm –Diplontic life cycle
- Pteridophytes- haplo-diplontic life cycle.
- Angiosperm-Diplontic life cycle
- Most algal genera are haplontic, some algae *Ectocarpus*, *kelp,Polysiphonia*, are haplo-diplontic and *Fucus* -diplontic

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118. (2)

Elaborate mechanism of spore dispersal is feature of Mosses.

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119. (2)

Spore develop inside capsule by meiosis in Bryophytes

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120. (2)

Male gametophyte

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121. (3)

The megaspore mother cell divides meiotically to form four megaspores. One of the megaspores enclosed within the megasporangium develops into a multicellular female gametophyte that bears two or more archegonia or female sex organ.

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122. (4)

The male sex organ in a flower is the stamen.

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123. (2)

Seed bearing plants-Gymnosperm and Angiosperm.

124. (4)

Ulothrix

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125. **(1)**
The sporophytes bear sporangia that are subtended by leaf-like appendages called sporophylls.
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126. (1)
Polytrichum-Bryophyte
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127. (3)
Unicellular rhizoids present in liverworts
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128. (3)
The stems are unbranched (*Cycas*) or branched *(Pinus, Cedrus)*
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129. (2)
Thick cuticle.
CLASS 11th NCERT Pg. No.38

130. (4)
Species of *Sphagnum*, a moss, provide peat that have long been used as fuel.
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131. (4)
Spirogyra
CLASS 11th NCERT Pg. No.30

132. (3)
Cycas, Cedrus, Fucus, Sequoia
CLASS 11th NCERT Pg. No.39,42

133. (4)
Ectocarpus, Polysiphonia, kelps are haplo-diplontic.
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134. (4)
Flagella are absent in Rhodophyceae
CLASS 11th NCERT Pg. No.33

135. (1)
Zygotes do not undergo reduction division immediately. They produce a multicellular body called a sporophyte.
CLASS 11th NCERT Pg.35

136. (2)
Sphagnum, Marchantia, Polytrichum, Selaginella, Ectocarpus, Polysiphonia
NCERT Pg. No. 33

137. (1)
- *Selaginella* and *Salvinia* -produce two kinds of spores, macro (large) and micro (small) spores, are known as heterosporous
- The development of the zygotes into young embryos take place within the female gametophyte.

CLASS 11th NCERT Pg.38

138. (3)
S*argassum* (Phaeophyceae Brown algae) -Chl c
NCERT Pg.No. 33

139. (1)
Polysiphonia–Oogamous
CLASS 11th NCERT Pg.36

140. (2)
In pteridophytes, the main plant body is a sporophyte.
CLASS 11th NCERT Pg.36

141. (2)
In sexual reproduction, the sex organs antheridia and archegonia are produced at the apex of the leafy shoots.
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142. (3)
Five
CLASS 11th NCERT Pg.35

143. (4)
All of these
CLASS 11th NCERT Pg.36,38

144. (4)
Many species of *Porphyra*,
Laminaria and *Sargassum* are among the 70 species of marine algae used as food.
CLASS 11th NCERT Pg.32

145. (1)
Pyriform or pear shape gamete present in *Ectocaprus.*
CLASS 11th NCERT Pg.33

146. (4)
Coralloid roots having association with N_2 fixing bacteria are found in *Cycas*

CLASS 11th NCERT Pg.38

147. (3)
* The leaves are small (microphyll) as in *Selaginella* or large (macrophyll) as in *ferns*.
* *Funaria, Polytrichum and Sphagnum* are common examples of mosses.

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148. (4)
Food is stored as complex carbohydrates, which may be in the form of laminarin or mannitol

CLASS 11th NCERT Pg.33

149. (1)
Green algae usually have a rigid cell wall made of an inner layer of cellulose and an outer layer of pectose

CLASS 11th NCERT Pg. No. 32

150. (1)
Liverworts

CLASS 11th NCERT Pg.35

(ZOOLOGY)

151. (2)
[NCERT Pg. No. 291]

152. (3)
[NCERT Pg. No. 291]

153. (3)
[NCERT Pg. No. 292]

154. (4)
[NCERT Pg. No. 291]

155. (1)
[NCERT Pg. No. 291]

156. (1)
[NCERT Pg. No. 290]

157. (1)
[NCERT Pg. No. 291]

158. (1)
[NCERT Pg. No. 291]

159. (3)
[NCERT Pg. No. 291]

160. (1)
[NCERT Pg. No. 291 & 293]

161. (1)
[NCERT Pg. No. 290]

162. (2)
[NCERT Pg. No. 290 & 292]

163. (4)
[NCERT Pg. No. 290]

164. (2)
[NCERT Pg. No. 290]

165. (3)
[NCERT Pg. No. 294]

166. (1)
[NCERT Pg. No. 293]

167. (2)
[NCERT Pg. No. 294]

168. (1)
[NCERT Pg. No. 293]

169. (1)
[NCERT Pg. No. 293]

170. (1)
[NCERT Pg. No. 294]

171. (4)
[NCERT Pg. No. 297]

172. (2)
[NCERT Pg. No. 297]

173. (1)
[NCERT Pg. No. 295]

174. (3)
[NCERT Pg. No. 297]

175. (1)
[NCERT Pg. No. 291 & 292]

176. (2)
[NCERT Pg. No. 297]

177. (1)
[NCERT Pg. No. 293]

178. (3)
[NCERT Pg. No. 293]

179. (3)
[NCERT Pg. No. 291 & 292]

180. (1)
[NCERT Pg. No. 294]

181. (1)
[NCERT Pg. No. 294]

182. (4)
[NCERT Pg. No. 297]

183. (1)
[NCERT Pg. No. 296]

184. (2)
[NCERT Pg. No. 298]

185. (4)
[NCERT Pg. No. 296]

186. (1)
[NCERT Pg. No. 296]

187. (2)
[NCERT Pg. No. 298 & 299]

188. (3)
[NCERT Pg. No. 294]

189. (4)
[NCERT Pg. No. 296]

190. (2)
[NCERT Pg. No. 303]

191. (1)
[NCERT Pg. No. 297]

192. (1)
[NCERT Pg. No. 297]

193. (4)
[NCERT Pg. No. 298]

194. (2)
[NCERT Pg. No. 298]

195. (1)
[NCERT Pg. No. 297]

196. (3)
[NCERT Pg. No. 293]

197. (1)
[NCERT Pg. No. 303]

198. (2)
[NCERT Pg. No. 303]

199. (3)
[NCERT Pg. No. 303]

200. (1)
[NCERT Pg. No. 303]