

NEET UG (2024)
Biology
Quiz-20

- 103.** Epiblema is;
 (1) innermost layer of the cortex.
 (2) outermost layer of stele in monocot.
 (3) outermost epidermal layer in roots.
 (4) tissue that lie between the xylem and phloem.
- 104.** Waxy material deposited on barrel shaped cells are found in;
 (1) epidermis.
 (2) endodermis.
 (3) pericycle.
 (4) cortex.
- 105.** Radial vascular bundle is characteristic feature of;
 (1) dicot stem only.
 (2) monocot root only.
 (3) both dicot root and monocot root.
 (4) both dicot stem and monocot stem.
- 106.** In which of the following pericycle is found in the form of semilunar patches?
 (1) Maize root
 (2) Sunflower root
 (3) Sunflower stem
 (4) Maize stem
- 107.** Dicot stem is characterised by presence of;
 (1) open, conjoint vascular bundles.
 (2) starchy epidermis.
 (3) sclerenchymatous general cortex.
 (4) water containing cavities in the vascular bundles.
- 108.** Symbol $C^{\overline{A}}$ represents;
 (1) epitepalous stamens.
 (2) epipetalous stamens.
 (3) epiphyllous stamens.
 (4) gamopetalous stamens.
- 109.** Inner layer of seed coat is called;
 (1) testa. (2) hilum.
 (3) tegmen. (4) micropyle.
- 110.** The edible fleshy part of mango is;
 (1) endosperm. (2) endocarp.
 (3) mesocarp. (4) epicarp.
- 111.** Which of the following plants has basal placentation?
 (1) China rose (2) Sunflower
 (3) *Dianthus* (4) *Argemone*
- 112.** In palmately compound leaf, leaflets are present on/at;
 (1) rachis.
 (2) midrib.
 (3) tip of the petiole.
 (4) axil of branch.
- 113.** Parallel venation is seen in the leaves of;
 (1) peepal. (2) mango.
 (3) *Hibiscus*. (4) banana.
- 114.** Reaction center of PS-I;
 (1) has chlorophyll b and absorb the light at 780 nm.
 (2) has chlorophyll b and absorb the light at 680 nm.
 (3) has chlorophyll a and absorb the light at 700 nm.
 (4) does not contain chlorophyll a in it.
- 115.** Leaves originate from __ and are arranged in __ order.
 (1) shoot apical meristem, acropetal
 (2) floral meristem, acropetal
 (3) root apical meristem, basipetal
 (4) shoot apical meristem, basipetal
- 116.** Ovary is said to be superior in flowers of which of the given plants?
 (1) Plum
 (2) Ray florets of sunflower
 (3) Mustard
 (4) Rose
- 117.** First CO₂ acceptor molecule during Hatch and Slack pathway is;
 (1) phosphoenol pyruvate.
 (2) pyruvic acid.
 (3) ribulose-1, 5-bisphosphate.
 (4) malic acid.
- 118.** Select the mismatched pair;
 (1) Primary CO₂ 5C molecule acceptor in potato
 (2) Primary CO₂ 4C molecule acceptor in maize
 (3) First stable product in maize OAA
 (4) First stable product in bell pepper PGA

119. Select the **incorrect** statement w.r.t. photosynthetic units;

- (1) Both photosystem I and II have light harvesting complex.
- (2) The light harvesting complex are made up of few pigment molecules bound to protein.
- (3) Light harvesting pigments are also called antenna molecules.
- (4) Each reaction centre has a single molecule of chlorophyll *a*.

120. During photosynthesis, following products are formed in which region of chloroplast?

- I. O_2
- II. Triose phosphate
- III. NADPH
- IV. ATP

Choose the **correct** option:

	I	II	III	IV
(1)	Stroma	Thylakoid lumen	Stroma	Thylakoid lumen
(2)	Stroma	Thylakoid lumen	Thylakoid lumen	Stroma
(3)	Thylakoid lumen	Stroma	Stroma	Stroma
(4)	Thylakoid lumen	Stroma	Thylakoid lumen	Stroma

121. Colours seen on chromatogram by chlorophyll *a* and chlorophyll *b* are respectively;

- (1) bright or blue green and yellow-orange.
- (2) yellow-orange and yellow.
- (3) bright or blue green and yellow-green.
- (4) yellow green and yellow-orange.

122. Read the statements given below.

- I. The PS I and PS II are connected through an electron transport chain.
- II. The membrane or lamellae of the grana have both PS I and PS II the stroma lamellae membranes lack PS II.
- III. Non-cyclic photophosphorylation occurs when only light of wavelengths beyond 680 nm are available for excitation.

Choose the **correct** option.

- (1) Only I and III are correct
- (2) Only II is correct
- (3) Only I and II are correct
- (4) Only II and III are incorrect

123. How many of the following are the products of light reaction in photosynthesis?

ATP, NADPH, oxygen, $FADH_2$, NADH

- (1) 2
- (2) 3
- (3) 4
- (4) 5

124. How many turns of Calvin cycle are required to make one molecule of sucrose?

- (1) Three
- (2) Six
- (3) Twelve
- (4) Nine

125. Arrange these from largest to smallest w.r.t size

- (C) - Chloroplast, (MC) - Mesophyll cell,
(P) - Pigment system, (T) - Thylakoid,
(M) - Chlorophyll molecule
- (1) MC-T-P-C-M
 - (2) P-MC-C-T-M
 - (3) MC-C-T-P-M
 - (4) P-MC-T-C-M

126. Who for the first time demonstrated that during photosynthesis, oxygen evolved by green plants comes from H_2O ?

- (1) Cornelius van Niel
- (2) T.W. Engelmann
- (3) Joseph Priestley
- (4) Jan Ingenhousz

127. In Hatch-Slack pathway malic acid is first formed in;

- (1) mesophyll cells.
- (2) cytoplasm of bundle sheath cells.
- (3) epidermal cells of leaf.
- (4) chloroplast of bundle sheath cells.

128. In Kranz anatomy, the bundle sheath cells have;

- (1) thin walls, no intercellular spaces and several chloroplasts.
- (2) thick walls, many intercellular spaces and few chloroplasts.
- (3) thin walls, many intercellular spaces and no chloroplasts.
- (4) thick walls, no intercellular spaces and large number of chloroplasts.

129. Choose the **incorrect** statement w.r.t ethylene;

- (1) Ethylene induces flowering in mango tree.
- (2) Ethylene promotes senescence of plant organs especially of leaves and flowers.
- (3) Ethylene promotes rapid internode/petiole elongation in deep water rice plants.
- (4) Ethylene is the least used PGR in agriculture and horticulture.

- 130.** The intrinsic factor influencing the development in plants is;
- (1) O_2 .
 - (2) H_2O .
 - (3) CO_2 and nutrition.
 - (4) plant growth regulators.
- 131.** Choose the **incorrect** matched pair w.r.t plant growth regulators;
- (1) Ethylene - Gaseous plants hormone
 - (2) Auxins - Inhibits abscission of young leaves
 - (3) Gibberellins - Promotes ripening of fruits
 - (4) Cytokinins - Delays leaf senescence
- 132.** The cells of _____ zone, attain their maximal size in terms of wall thickening and protoplasmic modifications;
- (1) meristematic
 - (2) elongation
 - (3) maturation
 - (4) dedifferentiation
- 133.** Synthesis of hormone (**P**) in plants is stimulated by drought, waterlogging and other adverse environmental conditions.
Here hormone (**P**) is;
- (1) Ethylene
 - (2) Anti GA
 - (3) Zeatin
 - (4) NAA

- 134.** Match **List-I** and **List-II** to find out the **correct** option.

	List-I		List-II
(I)	Meristematic phase	(A)	Physiological differentiation
(II)	Elongation phase	(B)	Abundant plasmodesmatal connection
(III)	Maturation phase	(C)	New cell wall deposition

(I) (II) (III)

- (1) (A) (B) (C)
- (2) (B) (C) (A)
- (3) (C) (A) (B)
- (4) (C) (B) (A)

- 135. Assertion (A):** Plant growth is unique because plants retain the capacity for unlimited growth throughout their life.

Reason (R): Growth, at a cellular level, is principally a consequence of increase in the amount of protoplasm.

Select the **correct** option

- (1) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
- (2) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
- (3) **Assertion (A)** is true, and **Reason (R)** is false.
- (4) **Assertion (A)** is false, and **Reason (R)** is true

- 136.** In roots;

- (1) the protoxylem lies towards the pith.
- (2) the arrangement of primary xylem is exarch type.
- (3) the metaxylem lies towards the periphery of the organ.
- (4) Only metaxylem is present and no protoxylem is found.

- 137.** Growth in plants is characterised by all of the given features, **except**;

- (1) permanent increase in size.
- (2) irreversible change.
- (3) open form of growth.
- (4) usually determinate growth.

- 138.** Find the odd one w.r.t. accessory pigments.

- (1) Chlorophyll b
- (2) Xanthophylls
- (3) Carotenoids
- (4) Chlorophyll a

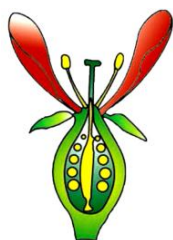
- 139.** Match List-I with List-II to find out the **correct** option.

	List-I		List-II
(I)	Lag phase	(A)	Growth is rapid and maximum
(II)	Exponential phase	(B)	Growth slows down and become steady
(III)	Stationary phase	(C)	Initial phase of growth

(I) (II) (III)

- (1) (A) (B) (C)
- (2) (B) (C) (A)
- (3) (C) (A) (B)
- (4) (C) (B) (A)

- 140.** Find the **incorrect** statement;
- (1) Photorespiration is highest in C_4 plants like *Sorghum*.
 - (2) Increase in concentration upto 0.05 percent can cause an increase in CO_2 fixation rates.
 - (3) Water stress causes the stomata to close hence reducing the CO_2 availability.
 - (4) Tropical plants have a higher temperature optimum than the plants adapted to temperate climates.
- 141.** Which of the following plant hormones promotes internode elongation just prior to flowering in rosette plants?
- (1) Gibberellin
 - (2) Cytokinin
 - (3) Auxin
 - (4) Ethylene
- 142.** Find the odd one w.r.t. ATP synthase.
- (1) It is composed of $CF_0 - CF_1$ component.
 - (2) CF_1 protrudes on the outer surface of thylakoid membrane.
 - (3) CF_0 is embedded in the thylakoid membrane.
 - (4) CF_0 is the site of ATP synthesis.
- 143. Statement-I:** NADP reductase is located on the stroma side of the thylakoid membrane.
Statement-II: Xanthophylls give yellow colour in chromatogram.
 Select the **correct** option.
- (1) Statement I and Statement II both are correct.
 - (2) Statement I is correct, but Statement II is incorrect.
 - (3) Statement I is incorrect, but Statement II is correct.
 - (4) Statement I and Statement II both are incorrect.
- 144.** Based on the position of floral whorls w.r.t. ovary on the thalamus, which flower shows the given condition?



- (1) Guava
 - (2) Plum
 - (3) Rose
 - (4) China rose
- 145.** Large empty, colourless cell that help in minimising water loss during drought condition are found in;
- (1) dicot stem
 - (2) dicot leaf
 - (3) monocot leaf
 - (4) monocot stem

- 146.** Stem bears;
- (1) terminal buds
 - (2) axillary buds
 - (3) apical buds
 - (4) all of the above

- 147.** Find out the **correct** matched pair;
- (1) CO_2 saturation point is beyond $450 \mu L^{-1}$ – C_4 plants
 - (2) Primary CO_2 acceptor is 3C compound – C_3 plants
 - (3) Efficient process of CO_2 fixation – C_3 plants
 - (4) Bundle sheath has large number of chloroplast – C_4 plants

- 148. Assertion (A):** Carboxylation is the most crucial steps of the Calvin cycle.

Reason (R): Regeneration steps of the Calvin cycle requires one ATP for phosphorylation to form RuBP.

Select the **correct** option.

- (1) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
 - (2) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
 - (3) **Assertion (A)** is true, and **Reason (R)** is false.
 - (4) **Assertion (A)** is false, and **Reason (R)** is true.
- 149. Statement-I:** Androecium and Gynoecium are necessary organs of flower.
Statement-II: When a flower either has only stamens or only carpels it is said to be unisexual.
 Select the **correct** option.
- (1) Both statement I and II are correct
 - (2) Statement I is correct and statement II is incorrect
 - (3) Statement I is incorrect and statement II is correct
 - (4) Both statement I and II are incorrect

- 150.** Match **List-I** with **List-II** to find out the **correct** option.

	List-I		List-II
(I)	Dicot stem	(A)	Fewer xylem bundles
(II)	Monocot root	(B)	Mesophyll
(III)	Leaves	(C)	Hypodermis present
(IV)	Dicot root	(D)	More than 6 xylem bundles

- | | | | |
|-------|----|-----|----|
| I | II | III | IV |
| (1) C | D | B | A |
| (2) A | B | C | D |
| (3) D | B | A | C |
| (4) C | D | A | B |

(ZOOLOGY)

SECTION-A

- 151.** Mantle is a characteristic feature of;
(1) Phylum Coelenterata
(2) Phylum Mollusca
(3) Phylum Annelida
(4) Phylum Arthropoda
- 152.** Which animal has great power of regeneration?
(1) *Planaria* (2) *Ancylostoma*
(3) *Nereis* (4) *Pheretima*
- 153.** Addison's disease is related to;
(1) hyposecretion of insulin from pancreas.
(2) hypersecretion of GH from anterior pituitary.
(3) hypersecretion of T_3/T_4 from thyroid gland.
(4) hyposecretion of hormones from adrenal cortex.
- 154.** Which is a function of melatonin hormone?
(1) Calcium homeostasis
(2) 24-hour (diurnal) rhythm regulation
(3) Basal metabolic rate maintenance
(4) Na^+ retention in blood
- 155.** Which animal is called sea fan?
(1) *Aplysia* (2) *Pennatulula*
(3) *Gorgonia* (4) *Echinus*
- 156.** Worm like marine animal with body divisible into proboscis, collar and trunk is seen in;
(1) *Balanoglossus* (2) *Ophiura*
(3) *Dentalium* (4) *Limulus*
- 157.** Which vector arthropod cause elephantiasis?
(1) *Aedes* (2) *Culex*
(3) *Anopheles* (4) *Glossina*
- 158.** Vasopressin acts mainly on;
(1) Brain (2) Kidney
(3) Bone (4) Testis
- 159. Statement-1:** Cretinism is due to hypersecretion of T_3 and T_4 hormones.
Statement-2: In cretinism, a child suffers from stunted growth, mental retardation and deaf-mutism.
(1) Statement I and Statement II both are correct.
(2) Statement I is correct, but Statement II is incorrect.
(3) Statement I is incorrect, but Statement II is correct.
(4) Statement I and Statement II both are incorrect.
- 160.** On an average, how much urea is excreted out per day by an adult human?
(1) 25-30 gm (2) 15-20 gm
(3) 35-40 gm (4) 40-45 gm
- 161.** Aldosterone stimulates reabsorption of;
(1) Na^+ (2) Glucose
(3) K^+ (4) Ca^{+2}
- 162.** Nearly all the essential nutrients and 70-80% of electrolytes and water are reabsorbed in the;
(1) PCT
(2) Henle's Loop
(3) DCT
(4) Collecting duct
- 163.** Radula is a characteristic of which animal?
(1) *Ascaris* (2) *Pila*
(3) *Asterias* (4) *Anopheles*
- 164. Assertion (A):** Old people have a weaker immune system.
Reason (R): In old age thymus gland becomes very large.
(1) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
(2) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
(3) **Assertion (A)** is true, and **Reason (R)** is false.
(4) **Assertion (A)** is false, and **Reason (R)** is true.
- 165.** Water vascular system is a feature of;
(1) Phylum Hemichordata
(2) Phylum Mollusca
(3) Phylum Echinodermata
(4) Phylum Arthropoda
- 166.** Which is a cuttle fish?
(1) *Octopus* (2) *Asterias*
(3) *Sepia* (4) *Antedon*
- 167.** As compared to plasma all are constituents of dialysing fluid except;
(1) NaCl (2) Glucose
(3) Amino acid (4) Urea

168. Which hormone increases blood calcium levels?

- (1) Thymosin (2) ADH
(3) Parathormone (4) Thyroxin

169. Assertion and Reason type question.

Assertion (A): Diabetes mellitus is related to pancreas.

Reason (R): α . cells of pancreas stop producing insulin.

- (1) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
(2) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
(3) **Assertion (A)** is true, and **Reason (R)** is false.
(4) **Assertion (A)** is false, and **Reason (R)** is true.

170. Which animal has a pseudocoelom?

- (1) *Taenia* (2) *Wuchereria*
(3) Earthworm (4) *Nereis*

171. **Statement-1:** Annelida phylum show metameric segmentation.

Statement-2: *Hydra* and *Adamsia* are polyps found in phylum coelenterata.

- (1) Statement I and Statement II both are correct.
(2) Statement I is correct, but Statement II is incorrect.
(3) Statement I is incorrect, but Statement II is correct.
(4) Statement I and Statement II both are incorrect.

172. Match **List-I** with **List-II** to find out the correct option.

	List-I		List-II
(A)	<i>Euspongia</i>	(i)	Mollusca
(B)	Open circulatory system	(ii)	<i>Nereis</i>
(C)	<i>Pleurobrachia</i>	(iii)	Canal system
(D)	Parapodia	(iv)	Radial symmetry
		(v)	Annelida

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

173. Liver excretes which compound;

- (1) NaCl
(2) Cholesterol
(3) Carbon dioxide
(4) Waxes

174. Release of ovum from ovary (ovulation) in mid of menstrual cycle is due to high level of which hormone?

- (1) FSH (2) ACTH
(3) Testosterone (4) LH

175. Exophthalmic goitre also called Graves disease is associated with;

- (1) Low secretion of cortisol.
(2) High secretion of T3/T4.
(3) Low secretion of T3/T4.
(4) High secretion of GH.

176. Which hormone functions by modulating production of mRNA and protein, and regulating gene expression?

- (1) Adrenaline (2) Insulin
(3) FSH (4) Testosterone

177. Which hormone increase alertness, cause sweating, pupillary dilation, piloerection (raising of hairs), increase in heart beat?

- (1) Insulin (2) Epinephrine
(3) GH (4) Testosterone

178. Zona glomerulosa is a part of which endocrine gland?

- (1) Adrenal gland
(2) Pancreas
(3) Thyroid gland
(4) Thymus gland

179. Muscular pharynx with complete digestive system is found in;

- (1) *Nereis* (2) *Fasciola*
(3) *Ascaris* (4) *Taenia*

180. Which is a **incorrect** match in the following

- (1) *Ancylostoma* – Hook worm
(2) *Hirudinaria* – Earthworm
(3) *Taenia* – Tapeworm
(4) *Meandrina* – Brain coral

181. Metagenesis is visible in

- (1) *Obelia* (2) *Sycon*
(3) *Hydra* (4) *Saccoglossus*

- 182.** Which animal show bioluminescence (emission of light)?
- (1) *Adamsia*
 - (2) *Cucumaria*
 - (3) *Pleurobrachia*
 - (4) *Apis*
- 183.** Presence of glucose and ketone bodies in urine are indicative of;
- (1) diabetes insipidus
 - (2) renal calculi
 - (3) diabetes mellitus
 - (4) glomerulonephritis
- 184.** Which hormone is secreted when GFR decreases?
- (1) ANF
 - (2) Renin
 - (3) Thyroxine
 - (4) ACTH
- 185.** Which animal belongs to largest phylum of animal kingdom?
- (1) *Antedon*
 - (2) *Bombyx*
 - (3) *Balanoglossus*
 - (4) *Octopus*

SECTION-B

- 186. Statement-I:** Column of Bertini consist of cortex that extends in between the medullary pyramids.
Statement-II: Kidneys are found between T₆-T₁₂
- (1) Statement I and Statement II both are correct.
 - (2) Statement I is correct, but Statement II is incorrect.
 - (3) Statement I is incorrect, but Statement II is correct.
 - (4) Statement I and Statement II both are incorrect.
- 187.** Selective secretion of H⁺ and K⁺ ions can be found in;
- (1) Ascending loop of Henle
 - (2) DCT
 - (3) Descending loop of Henle
 - (4) Vasa recta
- 188.** In which phylum, body of animal is divided into head, muscular foot and visceral hump?
- (1) Annelida
 - (2) Mollusca
 - (3) Echinodermata
 - (4) Coelenterata

- 189.** Assertion and Reason type question.
Assertion (A): Over two thirds of all named species on earth are arthropods.
Reason (R): Arthropods have antennae and compound eyes as sense organs.
- (1) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
 - (2) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
 - (3) **Assertion (A)** is true, and **Reason (R)** is false.
 - (4) **Assertion (A)** is false, and **Reason (R)** is true.
- 190.** Which hormone increases blood sugar levels?
- (1) Insulin
 - (2) ADH
 - (3) Estrogen
 - (4) Cortisol
- 191. Statement-I:** Kidney failure may decrease blood urea levels, a condition called uremia.
Statement-II: ADH is a good vasodilator.
- (1) Statement I and Statement II both are correct.
 - (2) Statement I is correct, but Statement II is incorrect.
 - (3) Statement I is incorrect, but Statement II is correct.
 - (4) Statement I and Statement II both are incorrect.
- 192.** Which hormone helps in milk production in mammary gland?
- (1) Prolactin
 - (2) Estrogen
 - (3) Progesterone
 - (4) Androgens
- 193.** Which is a gonadotrophin in the following?
- (1) Estrogen
 - (2) GnRH
 - (3) LH
 - (4) Progesterone
- 194.** Assertion and Reason type question.
Assertion (A): Failure of release of oxytocin from anterior pituitary can delay childbirth.
Reason (R): Oxytocin acts on fallopian tube and helps in delivery of child.
- (1) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
 - (2) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
 - (3) **Assertion (A)** is true, and **Reason (R)** is false.
 - (4) Both **Assertion (A)** and **Reason (R)** are false.

195. Excess secretion of GH in adults specially in middle age may cause;

- (1) Gigantism
- (2) Acromegaly
- (3) Myxedema
- (4) Dwarfism

196. Match **List-I** with **List-II** to find out the **correct** option.

	List-I		List-II
(A)	<i>Ancylostoma</i>	(i)	Squid
(B)	<i>Echinus</i>	(ii)	Hookworm
(C)	<i>Loligo</i>	(iii)	Kingcrab
(D)	<i>Limulus</i>	(iv)	Sea urchin

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

197. Which phylum posses longitudinal and circular muscle for locomotion and perform excretion with the help of nephridia?

- (1) Annelida (2) Mollusca
- (3) Porifera (4) Ctenophora

198. 8 external rows of ciliated comb plates that help in locomotion are found in;

- (1) *Physalia* (2) *Pleurobrachia*
- (3) *Ascaris* (4) *Nereis*

199. Hooks and suckers are found in endoparasites, these are triploblastic, acoelomate and are hermaphrodite animals. Find out the correct example of the above

- (1) *Ancylostoma* (2) *Fasciola*
- (3) *Wuchereria* (4) *Asterias*

200. Spiny bodied animal, with no excretory system, radial symmetry in adults and have a endoskeleton of calcareous ossicles is

- (1) *Asterias* (2) *Echinus*
- (3) *Ophiura* (4) All of the above

Solution

- 108. (2)**
This symbol represents epipetalous stamens. When stamens are attached to the petals, they are epipetalous.
(NEW NCERT 11th Page No. 64, 69)
- 109. (3)**
The seed coat has two layers, the outer testa and the inner tegmen.
(NEW NCERT 11th Page No. 66)
- 110. (3)**
In mango the pericarp is well differentiated into an outer thin epicarp, a middle fleshy edible mesocarp and an inner stony hard endocarp.
(NEW NCERT 11th Page No. 66)
- 111. (2)**
In basal placentation, the placenta develops at the base of ovary and a single ovule is attached to it, as in sunflower, marigold.
China rose : Axile placentation
Dianthus : Free central placentation
Argemone : Parietal placentation
(NEW NCERT 11th Page No. 65)
- 112. (3)**
In palmately compound leaves, the leaflets are attached at a common point, i.e., at the tip of petiole, as in silk cotton.
(NEW NCERT 11th Page No. 61)
- 113. (4)**
When the veins run parallel to each other within a lamina, the venation is termed as parallel. It is the characteristic of most monocotyledons, as in banana.
(NEW NCERT 11th Page No. 60)
- 114. (3)**
In PS I the reaction centre chlorophyll a has an absorption peak at 700 nm, hence is called P700.
(NEW NCERT 11th Page No. 138)
- 115. (1)**
Leaves originate from shoot apical meristems and are arranged in an acropetal order.
(NEW NCERT 11th Page No. 59)
- 116. (3)**
In the hypogynous flower the gynoecium occupies the highest position while the other parts are situated below it. The ovary in such flowers is said to be superior, e.g., mustard, china rose and brinjal.
(NEW NCERT 11th Page No. 63)

- 117. (1)**
The primary CO₂ acceptor is a 3-carbon molecule phosphoenol pyruvate (PEP) and is present in the mesophyll cells.
(NEW NCERT 11th Page No. 146)
- 118. (2)**
Primary CO₂ in maize is a 3-carbon molecule phosphoenol pyruvate(PEP) and is present in the mesophyll cells.
(NEW NCERT 11th Page No. 146)
- 119. (2)**
The LHC are made up of hundreds of pigment molecules bound to proteins.
(NEW NCERT 11th Page No. 138)
- 120. (3)**
I. O₂ is produced in the thylakoid lumen.
II. Triose phosphate is formed in the stroma.
III. NADPH is also produced in stroma.
IV. ATP is synthesised in stroma.
(NEW NCERT 11th Page No. 141)
- 121. (3)**
Chlorophyll a: Bright or blue green in the chromatogram.
Chlorophyll b: Yellow green in the chromatogram
(NEW NCERT 11th Page No. 137)
- 122. (3)**
Statement III is incorrect.
Cyclic photophosphorylation occurs when only light of wavelengths beyond 680 nm are available for excitation.
(NEW NCERT 11th Page No. 140)
- 123. (2)**
 - ATP
 - NADPH
 - Oxygen
 - These three are products of the light reaction. FADH₂ and NADH are typically associated with the electron transport chain in cellular respiration rather than photosynthesis.
(NEW NCERT 11th Page No. 142)
- 124. (3)**
To make one molecule of glucose 6 turns of the cycle are required. Since sucrose is a disaccharide, it would take 12 turns of the Calvin cycle.
(NEW NCERT 11th Page No. 145)

125. (3)

Chlorophyll molecules form pigment system which is present in thylakoid. Thylakoids are present in chloroplast and chloroplast are present in mesophyll cells.

(NEW NCERT 11th Page No. 136)

126. (1)

Cornelius van Niel for the first time demonstrated that O₂ is evolved from H₂O during photosynthesis.

(NEW NCERT 11th Page No. 161)

127. (1)

In C₄ cycle (Hatch-slack pathway) malic acid is first formed in mesophyll cells.

(NEW NCERT 11th Page No. 157)

128. (4)

In Kranz anatomy, the bundle sheath cells may form several layers around the vascular bundles; they are characterised by having a large number of chloroplasts, thick walls impervious to gaseous exchange and no intercellular spaces

(NEW NCERT 11th Page No. 145)

129. (4)

Ethylene is one of the most widely used PGR in agriculture.

(NEW NCERT 11th Page No. 177)

130. (4)

Plant growth regulators are intrinsic factor, play a critical role in regulating various aspects of plant development.

(NEW NCERT 11th Page No.

174)

131. (3)

Ethylene is highly effective in fruit ripening. It enhances the respiration rate during ripening of the fruits. Whereas, gibberellins, cause fruits like apple to elongate and improve its shape.

(NEW NCERT 11th Page No. 176, 177)

132. (3)

The cells of maturation zone, attain their maximal size in terms of wall thickening and protoplasmic modifications.

(NEW NCERT 11th Page No. 169)

133. (2)

ABA helps seeds to withstand desiccation and other factors unfavourable for growth like drought and waterlogging. In most situations, ABA acts as an antagonist to GAs.

(NEW NCERT 11th Page No. 178)

134. (2)

(I)	Meristematic phase	(B)	Abundant plasmodesmatal connection
(II)	Elongation phase	(C)	New cell wall deposition
(III)	Maturation phase	(A)	Physiological differentiation

(NEW NCERT 11th Page No. 168)

135. (2)

Plant growth is unique because plants retain the capacity for unlimited growth throughout their life. This ability of the plants is due to the presence of meristems at certain locations in their body. Hence, both Assertion (A) and Reason (R) are the true, but Reason (R) is not a correct explanation of Assertion (A).

(NEW NCERT 11th Page No. 167, 168)

136. (2)

In most plant roots, the protoxylem lies towards the periphery, and the metaxylem lies towards the centre/pith of the root, making it exarch in arrangement.

(NEW NCERT 11th Page No. 74)

137. (4)

Plant growth generally is indeterminate due to the presence of meristems at certain locations in their body.

(NEW NCERT 11th Page No. 167)

138. (4)

Chlorophyll a is the major pigment responsible for trapping light, other thylakoid pigments like chlorophyll b, xanthophylls and carotenoids, which are called accessory pigments,

(NEW NCERT 11th Page No. 138)

139. (3)

	List-I		List-II
(I)	Lag phase	(C)	Initial phase of growth
(II)	Exponential phase	(A)	Growth is rapid and maximum
(III)	Stationary phase	(B)	Growth slows down and become steady

(NEW NCERT 11th Page No. 168, 169)

140. (1)

In C₄ plants photorespiration does not occur

(NEW NCERT 11th Page No. 147)

141. (1)

Gibberellins also promotes bolting (internode elongation just prior to flowering) in beet, cabbages and many plants with rosette habit

(NEW NCERT 11th Page No. 176)

142. (4)

- The ATP synthase enzyme consists of two parts: one called the CF_0 is embedded in the thylakoid membrane and forms a transmembrane channel that carries out facilitated diffusion of protons across the membrane. The other portion is called CF_1 and protrudes on the outer surface of the thylakoid membrane on the side that faces the stroma.
- The break down of the gradient provides enough energy to cause a conformational change in the CF_1 particle of the ATP synthase, which makes the enzyme synthesise several molecules of energy packed ATP.

(NEW NCERT 11th Page No. 142)

143. (1)

Statement I and Statement II both are correct

(NEW NCERT 11th Page No. 137, 141)

144. (1)

In epigynous flowers, the margin of thalamus grows upward enclosing the ovary completely and getting fused with it, the other parts of flower arise above the ovary. Hence, the ovary is said to be inferior as in flowers of guava and cucumber, and the ray florets of sunflower.

(NEW NCERT 11th Page No. 62)

145. (3)

- In monocots like grasses, certain adaxial epidermal cells along the veins modify themselves into large, empty, colourless cells. These are called bulliform cells.
- When the bulliform cells in the leaves have absorbed water and are turgid, the leaf surface is exposed. When they are flaccid due to water stress, they make the leaves curl inwards to minimise water loss.

(NEW NCERT 11th Page No. 77)

146. (4)

Stems can have terminal buds (located at the tip of the stem), axillary buds (found in the leaf axils along the stem), and apical buds (which are often used synonymously with terminal buds).

(NEW NCERT 11th Page No. 59)

147. (4)

- (1) CO_2 saturation point is – C_3 plants beyond $450 \mu L^{-1}$
- (2) Primary CO_2 acceptor – C_4 plants is 3C compound (PEP)
- (3) Efficient process of – C_4 plants CO_2 fixation

(NEW NCERT 11th Page No. 145, 146, 147, 150)

148. (2)

- Carboxylation is the fixation of CO_2 into a stable organic intermediate. Carboxylation is the most crucial step of the Calvin cycle where CO_2 is utilised for the carboxylation of RuBP.
- The regeneration steps require one ATP for phosphorylation to form RuBP.
- Hence, both Assertion (A) and Reason (R) are the true, but Reason (R) is not a correct explanation of Assertion (A).

(NEW NCERT 11th Page No. 143, 144)

149. (1)

Both statement I and II are correct.

(NEW NCERT 11th Page No. 62)

150. (1)

	List-I		List-II
(I)	Dicot stem	(C)	Hypodermis present
(II)	Monocot root	(D)	More than 6 xylem bundles
(III)	Leaves	(B)	Mesophyll
(IV)	Dicot root	(A)	Fewer xylem bundles

(NEW NCERT 11th Page No. 74, 75, 76)

(ZOOLOGY)

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152. (1)	NCERT 11th Page No. 42	168. (3)	NCERT 11th Page No. 243
153. (4)	NCERT 11th Page No. 244	169. (3)	NCERT 11th Page No. 245
154. (2)	NCERT 11th Page No. 242	170. (2)	NCERT 11th Page No. 39
155. (3)	NCERT 11th Page No. 41	171. (1)	NCERT 11th Page No. 41, 43
156. (1)	NCERT 11th Page No. 45	172. (1)	NCERT 11th Page No. 43, 44
157. (2)	NCERT 11th Page No. 44	173. (2)	NCERT 11th Page No. 213
158. (2)	NCERT 11th Page No. 241	174. (4)	NCERT 11th Page No. 246
159. (3)	NCERT 11th Page No. 241	175. (2)	NCERT 11th Page No. 243
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		183. (3)	NCERT 11th Page No. 214

184. (2)	NCERT 11th Page No. 212	193. (3)	NCERT 11th Page No. 241
185. (2)	NCERT 11th Page No. 44	194. (4)	NCERT 11th Page No. 241
186. (2)	NCERT 11th Page No. 207	195. (2)	NCERT 11th Page No. 241
187. (2)	NCERT 11th Page No. 210	196. (1)	NCERT 11th Page No. 44, 43
188. (2)	NCERT 11th Page No. 44	197. (1)	NCERT 11th Page No. 43
189. (2)	NCERT 11th Page No. 44	198. (2)	NCERT 11th Page No. 42
190. (4)	NCERT 11th Page No. 245	199. (2)	NCERT 11th Page No. 42
191. (4)	NCERT 11th Page No. 214	200. (4)	NCERT 11th Page No. 45
192. (1)	NCERT 11th Page No. 246		