KATTAR NEET 2026

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Plant Kingdom

Q1 How many of the following organisms have cellulose, pectin and polysulphate ester in their cell wall?

Gelidium, Selaginella, Polytrichum, Polysiphonia, Dictyota, Laminaria, Gracilaria

(A) Two (B) Four

(C) Three (D) Five

Q2 Select the **correct** sequence of arrangement of reproductive structures for *Cycas*.

(A) Microspores→Microsporophylls→Microsporangia→Male cone

(B) Megaspores→Megasporangia→Megasporophylls→Female cone

(C) Sporangia→Sporophylls→Spores→Strobili

(D) Megasporophylls→Megasporangia→Megaspores

Q3 Identify the type of taxonomy/classification for the given criteria or basis.

A. Only gross superficial morphological characters are considered

B. Consider external features, internal features, like ultrastructure, anatomy, embryology and phytochemistry

C. Based on evolutionary relationships between the various organisms

D. Based on chemical constituents of the plant

E. Based on all observable characteristics that are assigned with number and codes

Choose the **correct** answer from the options given below:

(A) A–Artificial Classification, B–Natural Classification, C–Phylogenetic Classification, D–Chemotaxonomy, E–Numerical Taxonomy

(B) A–Natural Classification, B–Phylogenetic Classification, C–Chemotaxonomy, D–Artificial Classification, E–Numerical Taxonomy

(C) A–Phylogenetic Classification, B–Artificial Classification, C–Natural Classification, D–Numerical Taxonomy, E–Chemotaxonomy

(D) A–Chemotaxonomy, B–Numerical Taxonomy, C–Artificial Classification, D–Natural Classification, E–Phylogenetic Taxonomy

Q4 According to evolutionary point of view which of the following plant's male gametophyte would have number of cells?

(A) *Polytrichum*

(B) *Cedrus*

(C) *Funaria*

(D) *Equisetum*

Q5 Identify the **incorrect** statements about algae:

A. They can be found on stones, soil, and wood.

B. They may be found in association with animals such as sloth bear.

C. Zoospore is the most common type of spore produced sexually.

D. Kelps are profusely branched forms.

E. Algae are classified into three classes based on the type of pigments possessed and the type of stored food.

Choose the **correct** answer from the options given below:
(A) A, D and E only
(B) B, C and D only
(C) C only
(D) D and E only

Q6 In which of the following plants male and female sex organs are present on different plant body?
A. *Cycas*
B. *Pinus*
C. *Selaginella*
D. *Marchantia*
E. *Salvinia*
Choose the **correct** answer from the options given below:
(A) A and B only
(B) A, C and D only
(C) B, C and E only
(D) A, C, D and E only

Q7 Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:
Assertion A: The spread of living pteridophytes is limited and restricted to narrow geographical regions.
Reason R: In pteridophytes, gametophytes require specific restricted requirement such as cool, damp, shady places to grow and need water for fertilisation.
In the light of the above statements, choose the **correct** answer from the options given below:
(A) A is true but R is false.
(B) A is false but R is true.
(C) Both A and R are true and R is the correct explanation of A.
(D) Both A and R are true but R is not the correct explanation of A.

Q8 Read the following statements about algae.
A. Algae contribute to nearly half of the total carbon dioxide fixation on Earth through photosynthesis.
B. Chlorella, a small multicellular green alga, is rich in proteins and used as a food supplement, even by space travellers.
C. Algae help increase the level of dissolved carbon dioxide in their immediate environment.
D. Commercially important hydrocolloids like algin and carrageen are obtained from red and brown algae, respectively.
E. Agar, obtained from red algae like *Gelidium* and *Gracilaria*, is used in microbial culture and food industries.
Choose the **correct** answer from the option given below:
(A) Only B, C and D are incorrect
(B) Only A, C, D and E are correct
(C) A, B, C, D and E are correct
(D) Only A, B and D are incorrect

Q9 Which of the following plants possess strobilus in their sporophytic stage?
A. *Selaginella*
B. *Equisetum*
C. *Cycas*
D. *Sphagnum*
E. *Pinus*
Choose the **correct** answer from the options given below:
(A) A, B, C and E only
(B) A, B, D and E only
(C) C only
(D) B and C only

Q10 In which of the following group of plants, gametophytes are free living?
(A) *Ginkgo*, *Polytrichum* and *Funaria*
(B) *Cedrus, Selaginella* and *Pteris*

(C) *Lycopodium, Adiantum* and *Psilotum*
(D) *Marchantia*, *Dryopteris* and *Sequoia*

Q11 Read the following five statements (A to E) and identify the **correct** statement(s):
A. Gymnosperms include medium-sized trees or tall trees and shrubs.
B. In gymnosperm, roots are generally tap roots.
C. Coralloid roots in *Cycas* show mycorrhizal association.
D. The stems are unbranched in *Cedrus* or branched *Pinus.*
E. In gymnosperms, male gamete and female gamete are present within pollen grain and ovule respectively.
Choose the **correct** answer from the options given below:
(A) A, D and E only
(B) B, C and E only
(C) A, B and E only
(D) B, C and D only

Q12 Identify the **correct** statement(s):
A. *Funaria* possesses unicellular and unbranched rhizoids.
B. Gemmae are asexual buds, which develop in small receptacles called gemma cups.
C. Peat obtained from *Sphagnum* plants is used as packing material for trans-shipment of living material.
D. Mosses reduce the impact of falling rain and prevent soil erosion.
E. Some mosses provide food for herbaceous mammals, birds and other animals.
Choose the **correct** answer from the options given below:
(A) A, B and C only
(B) B, C, D and E only
(C) A, C and D only
(D) B, D and E only

Q13 Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:
Assertion A: The plant body of bryophytes is more differentiated than that of algae but lacks true roots, stems, or leaves and possesses root-like, leaf-like, or stem-like structures.
Reason R: Main plant body in bryophytes is haploid.
In the light of the above statements, choose the **correct** answer from the options given below:
(A) A is true but R is false.
(B) A is false but R is true.
(C) Both A and R are true and R is the correct explanation of A.
(D) Both A and R are true but R is NOT the correct explanation of A.

Q14 Out of the given features, identify the **correct** one(s) for *Cycas*.
A. Multicellular female gametophyte retained within megasporangium
B. Roots show enhanced fixed N_2 content due to a symbiotic association
C. The pinnate leaves persist for a few years
D. Main plant body is sporophyte which bears male and female cones
E. Megaspore mother cell is differentiated from one of the cells of the nucellus
Choose the **correct** answer from the options given below:
(A) A, B, C, and E only
(B) A, B, D, and E only
(C) A, B, C, D, and E
(D) A, C, D, and E only

Q15 Given below are two statements:
Statement I: On the microsporangiate strobili, microsporophylls are arranged spirally along an axis, while in the megasporangiate strobili,

megasporophylls bearing ovules or megasporangia are present.

Statement II: In gymnosperm, pollen grains come in contact with the opening of the ovules borne on megasporophylls. The pollen tube carrying the male gametes grows towards archegonia in the ovules and discharge their contents near the mouth of the archegonia.

In the light of the above statements, choose the ***most appropriate*** answer from the options given below:

(A) Statement I is correct but Statement II is incorrect.
(B) Statement I is incorrect but Statement II is correct.
(C) Both Statement I and Statement II are correct.
(D) Both Statement I and Statement II are incorrect.

Q16 Which of the following are **not** common between bryophytes, pteridophytes and gymnosperms?

A. Production of spores through meiotic division.
B. Presence of archegonia as female sex organ.
C. Transfer of male gamete is mediated by water.
D. Development of gametophyte from spores.
E. Free living sporophytes.

Choose the **correct** answer from the options given below:

(A) C and E only
(B) A, B and D only
(C) B and D only
(D) C, D and E only

Q17 Match **List-I** with **List-II**.

List-I		**List-II**	
(A)	Floridean starch as stored food	(I)	Many green algae
(B)	2-8 equal size flagella arise apically	(II)	*Dictyota*
(C)	Gelatinous coating of algin covering cellulosic wall of vegetative cell	(III)	Kelps
(D)	May reach a height of 100 metres	(IV)	*Gelidium*

Choose the **correct** answer from the option given below:

(A) A–IV, B–I, C–II, D–III
(B) A–I, B–IV, C–III, D–II
(C) A–IV, B–I, C–III, D–II
(D) A–IV, B–II, C–I, D–III

Q18 Which of the following are the general features of green algae?

A. They may be unicellular (*Chlorella*), colonial (*Chara*) or filamentous (*Ulothrix*).
B. They are usually grass green due to the dominance of pigments chlorophyll a and b.
C. They usually have a rigid cell wall made of an inner layer of pectose and an outer layer of cellulose.
D. They possess pyrenoids in cytoplasm that contain protein besides starch.
E. The chloroplast may be discoid, plate-like, reticulate, cup-shaped, spiral or ribbon-shaped in different species.

Choose the **correct** answer from the option given below:

(A) B, D and E only
(B) A, C and D only
(C) A, D and E only
(D) B and E only

Q19 Which of the following statements are **correct** regarding members of class Phaeophyceae?

A. They are found in marine habitat only.
B. The photosynthetic part of their body is called frond.
C. Stipe helps in attaching the plant body to substratum.
D. They produce pear-shaped spores asexually and pyriform gametes sexually.
E. Stored food material is mannitol and laminarin.
Choose the **correct** answer from the option given below:
(A) A and B only
(B) D and E only
(C) A, B and C only
(D) B, D and E only

Q20 Which of the following statements are **correct** regarding Rhodophyceae?
A. They appear to be red in colour due to presence of chlorophyll d.
B. All of them are marine with greater concentrations found in the warmer areas.
C. They can be found at great depths in oceans where relatively little light penetrates.
D. The stored food is very similar to amylopectin and glycogen in structure.
E. Their sexual reproduction is accompanied by complex post fertilisation developments.
Choose the **correct** answer from the option given below:
(A) B, C and E only
(B) A, D and E only
(C) C, D and E only
(D) A, B and C only

Q21 Which of the following features is **not** common in *Volvox* and *Fucus*?
(A) Sexual reproduction by fusion of a small motile male gamete with a large non motile female gamete.
(B) Presence of chlorophyll a pigment.
(C) Presence of cellulose in cell wall.
(D) Presence of lateral unequal size flagella.

Q22 Which of the following is **not** a common feature for *Sphagnum* and *Equisetum*?
(A) They grow in damp and shady places.
(B) The gametophytes bear male and female sex organs called antheridia and archegonia.
(C) They require water for transfer of antherozoids to the mouth of archegonium.
(D) They possess rhizome.

Q23 Match **List-I** with **List-II**.

List-I		List-I	
(A)	Predominant gametophytic stage	(I)	*Salvinia*
(B)	Have an elaborate mechanism of spore dispersal	(II)	*Marchantia*
(C)	Event precursor to the seed habit	(III)	Ferns
(D)	Macrophyllous leaves	(IV)	*Polytrichum*

Choose the ***most appropriate*** answer from the option given below:
(A) A–II, B–IV, C–I, D–III
(B) A–IV, B–II, C–I, D–III
(C) A–IV, B–III, C–II, D–I
(D) A–III, B–IV, C–II, D–I

Q24 Which of the following parts are haploid structures?
A. Secondary protonema of *Funaria*
B. Prothallus of *Dryopteris*
C. Nucellus of *Cycas*
D. Archegonia of *Pinus*
E. Foot of *Marchantia*
Choose the **correct** answer from the option given below:
(A) B, D and E only
(B) A, C and E only

(C) A, B and D only
(D) B, C and E only

Q25 Given below are two statements:
Statement I: In bryophytes, zygotes do not undergo reduction division immediately; instead, they develop into a multicellular body called a sporophyte, in which meiosis occurs to produce spores.
Statement II: The sporophyte in liverworts is not free-living but attached to the photosynthetic gametophyte and derives nourishment from it.
In the light of the above statements, choose the ***most appropriate*** answer from the options given below:
(A) Statement I is correct but Statement II is incorrect.
(B) Statement I is incorrect but Statement II is correct.
(C) Both Statement I and Statement II are correct.
(D) Both Statement I and Statement II are incorrect.

Q26 Which of the following is **not** correct for pteridophytes?
A. They are used for medicinal purposes and as soil-binders.
B. Some may flourish well in sandy-soil conditions.
C. Like bryophytes, they live on land but require water for fertilisation.
D. Spores are formed through meiosis inside capsule.
E. These are first terrestrial vascular plant.
Choose the **correct** answer from the option given below:
(A) B only
(B) C and E only
(C) D only
(D) A and D only

Q27 A student observes a plant with cone-like structures growing in moist, shady areas. On closer observation, the cone bears compact clusters of sporangia subtended by leaf-like structures. Which of the following plants is it most likely to be?
(A) *Polytrichum* (B) *Cycas*
(C) *Equisetum* (D) Ferns

Q28 According to evolution point of view which plant groups shows retention of the female gametophyte and embryo development on the sporophyte?
(A) Algae and Pteridophytes only
(B) Bryophytes and pteridophytes only
(C) Some pteridophytes, gymnosperms and angiosperms
(D) Gymnosperms and angiosperms only

Q29 Identify the incorrect statement about bryophytes.
(A) They are primarily terrestrial plants.
(B) They depend on water for asexual reproduction.
(C) The primary plant body produces haploid gametes.
(D) Only some cells of sporophyte undergo meiosis to produce haploid spores.

Q30 Given below are two statements:
Statement I: In *Porphyra*, sexual reproduction involves fusion of a large and non-motile female gamete with smaller and non-motile male gamete.
Statement II: In *Spirogyra*, sexual reproduction involves fusion of non-flagellated gametes.
In the light of the above statements, choose the *most appropriate* answer from the options given below:
(A)

Statement I is correct but Statement II is incorrect.
(B) Statement I is incorrect but Statement II is correct.
(C) Both Statement I and Statement II are correct.
(D) Both Statement I and Statement II are incorrect.

Q31 Heterospory in *Selaginella* and *Salvinia* is evolutionarily significant because;
(A) It results in production of free-living gametophytes that are independent.
(B) It leads to the development of the embryo within the female gametophyte.
(C) It allows spores to develop into multicellular sporophytes immediately.
(D) It leads to development of vascular tissues in the sporophyte.

Q32 Gymnosperm leaves are well adapted to withstand extremes of temperature, humidity, and wind. All the following are correct reasons for this adaptation, **except**:
(A) They have small surface area due to needle-like shape.
(B) They are associated with mycorrhiza which obtains water and minerals for them.
(C) They are evergreen and not shed during autumn-winter period.
(D) Their sunken stomata reduce loss of water due to transpiration.

Q33 A member of rhodophyceae will not;
(A) have r-phycoerythrin in body.
(B) be present in warmer areas of oceans.
(C) reproduce asexually by motile spores.
(D) survive in dark depths of oceans.

Q34 Which of the following statements is a key evolutionary advancement seen in gymnosperms but absent in majority of pteridophytes and bryophytes?
(A) Development of multicellular sporophyte
(B) Presence of independent gametophyte
(C) Retention of female gametophyte within megasporangium
(D) Production of flagellated male gametes

Q35 Given below are two statements:
Statement I: The gametophyte is large, photosynthetic and dominant in pteridophytes.
Statement II: In pteridophytes, the zygote undergoes meiotic divisions to give rise to sporophyte.
In the light of the above statements, choose the *most appropriate* answer from the options given below:
(A) Statement I is correct but Statement II is incorrect.
(B) Statement I is incorrect but Statement II is correct.
(C) Both Statement I and Statement II are correct.
(D) Both Statement I and Statement II are incorrect.

Q36 A newly discovered aquatic organism had chlorophyll, lacked flagellated stages in its life cycle, and stored food in the form of a compound having structural similarity with amylopectin and glycogen. Which class should this organism should be placed into?
(A) Sphenosida (B) Rhodophyceae
(C) Phaeophyceae (D) Lycopsida

Q37 Match List I with List II.

List-I		List-II	
(A)	Alga rich in proteins	(I)	*Selaginella*
(B)	Asexual reproductive	(II)	*Ginkgo*

	structures are gemmae		
(C)	Microphyllous leaves	(III)	*Chlorella*
(D)	Living fossil	(IV)	*Marchantia*

Choose the **correct** answer from the options given below:
(A) A-IV, B-I, C-II, D-III
(B) A-II, B-III, C-IV, D-I
(C) A-III, B-IV, C-I, D-II
(D) A-I, B-III, C-II, D-IV

Q38 A plant is found to have a gelatinous coating of algin around its cells, biflagellate zoospores with unequal flagella, and stores food as laminarin. Which of the following is likely to be true for it?
(A) Complex post fertilization events
(B) Cup-shaped chloroplast
(C) Frond with holdfast and stipe
(D) Spiral chloroplast

Q39 Given below are two statements: One is labelled as Assertion (A) and the other is labelled as Reason (R):
Assertion (A): All gymnosperms produce the same type of spores.
Reason (R): The spores in gymnosperms are produced within sporangia that are borne on sporophylls which are arranged spirally along an axis to form lax or compact strobili or cones.
In the light of the above statements, choose the **correct** answer from the options given below:
(A) A is true but R is false
(B) A is false but R is true
(C) Both A and R are true and R is the correct explanation of A
(D) Both A and R are true but R is NOT the correct explanation of A

Q40 Read the following statements about green algae.
A. They store food in the form of mannitol or laminarin.
B. Chlorophyll *a* and *b* are localized in definite chloroplasts.
C. Pyrenoids are storage bodies in cytoplasm that contain proteins and starch.
D. Vegetative reproduction is by zoospores.
E. *Volvox* and *Chara* are examples of Chlorophyceae.
Choose the **correct** option.
(A) A, C, D are incorrect
(B) B, C, and E are correct
(C) B, C, D, and E are incorrect
(D) C, D and E are correct

Q41 Which of the following reflects the major life cycle transition when moving from bryophytes to pteridophytes?
(A) Dominance of gametophyte with multicellular rhizoids
(B) Sporophyte becoming independent and differentiated
(C) Sporophyte remaining nutritionally dependent on gametophyte
(D) Gametophyte showing elaborate structures like strobili

Q42 Given below are two statements:
Statement I: Large amounts of water holding substances (hydrocolloids) are produced by green algae.
Statement II: The algae produce energy-rich compounds which form the basis of the food cycles of all aquatic animals.
In the light of the above statements, choose the *most appropriate* answer from the options given below:
(A)

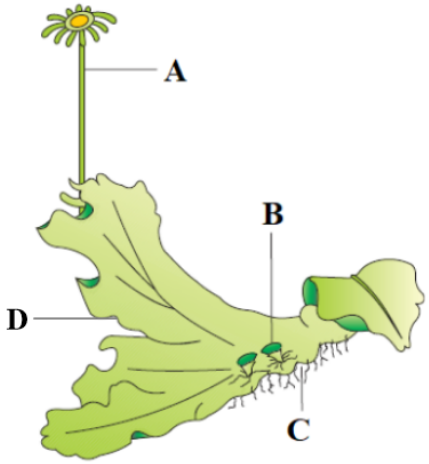
Statement I is correct but Statement II is incorrect.
(B) Statement I is incorrect but Statement II is correct.
(C) Both Statement I and Statement II are correct.
(D) Both Statement I and Statement II are incorrect.

Q43 The zoospores of brown algae have all the following characteristics, **except** that;
(A) they are asexual reproductive structures.
(B) they have unequal flagella.
(C) their flagella are apically attached.
(D) they are pear-shaped.

Q44 Given below are two statements: One is labelled as Assertion (A) and the other is labelled as Reason (R):
Assertion (A): Mosses are ecological pioneers and help in soil formation.
Reason (R): They prevent growth of higher plants on newly formed rocks.
In the light of the above statements, choose the **correct** answer from the options given below:
(A) A is true but R is false
(B) A is false but R is true
(C) Both A and R are true and R is the correct explanation of A
(D) Both A and R are true but R is NOT the correct explanation of A

Q45 A gymnosperm has coralloid roots. Which of the following should also be true for it?
(A) Its stems are branched.
(B) It is monoecious.
(C) Its leaves persist for few years.
(D) The roots are very large.

Q46 Go through the following diagram.



Choose the **incorrect** statement.
(A) 'D' is closely appressed to the substratum.
(B) Green, multicellular, asexual buds develop in 'B'.
(C) The multicellular structure 'A' produces biflagellate antherozoids.
(D) 'C' are unicellular.

Q47 Given below are two statements:
Statement I: The plant body is thalloid in case of algae and bryophytes.
Statement II: Gymnosperms are the first terrestrial plants to possess xylem and phloem.
In the light of the above statements, choose the *most appropriate* answer from the options given below:
(A) Statement I is correct but Statement II is incorrect.
(B) Statement I is incorrect but Statement II is correct.
(C) Both Statement I and Statement II are correct.
(D) Both Statement I and Statement II are incorrect.

Q48 In which of the following options all the listed genera belong to the same class of algae?
(A) *Chara, Fucus, Polysiphonia*
(B) *Volvox, Spirogyra, Chlamydomonas*
(C) *Porphyra, Ectocarpus, Ulothrix*

(D) *Sargassum, Laminaria, Gracilaria*

Q49 In order to ship a living material, the product of a plant was used. Choose the **incorrect** feature for that plant.
(A) It has elaborate mechanism of spore dispersal.
(B) It is used for medicinal purposes.
(C) Its sporophyte is differentiated into foot, seta and capsule.
(D) Spores are formed by meiosis.

Q50 Read the following statements.
(A) Both gymnosperms and angiosperms produce seeds, but gymnosperms have naked seeds.
(B) *Cycas* and *Pinus* bear male and female cones on the same plant.
(C) Pollen tube helps in internal fertilization in both gymnosperms as well as angiosperms.
(D) Ovules develop in specialised structures called flowers in angiosperms.
(E) Gymnosperms rely on water currents for pollen transfer.
In the light of above statements, choose the **correct** answer from the options given below:
(A) A, B, C, and D correct
(B) A, C, and D are correct
(C) B, C, D, and E are incorrect
(D) C, D and E are incorrect