# BIOLOGY

## BOOKS - TRUEMAN'S BIOLOGY (ENGLISH)

## Plant Kingdom

### Multiple Choice Question

**1.** A full mature plant body, undifferentiated into root, stem and leaf is called.

A. thallus

B. coenocytic

C. hyphae

D. callus

**Answer: A**

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**2.** Algae are included in

A. Thallophytes

B. spermatophytes

C. Embryophytes

D. Tracheophytes

**Answer: A**

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**3.** Algae have unique characters like

A. (a) thalloid plant body

B. (b) phycobilins

C. (c) unicellular sex organs

D. (d) mechanical tissue.

**Answer: A**

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**4.** Algae resemble fungi in the presence of similar

A. (a) reproductive structure

B. (b) cell wall

C. (c) reserve food

D. (d) mode of nutrition

**Answer: A**

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**5.** Green algae are ancestors of angiosperms/land plants because

A. both have vascular bundles

B. both have starch as reserve food

C. both have jacketed sex organs

D. all of the above

**Answer: B**

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**6.** Classification of Algae into 11 classes was made by Fritsch on the basis of flagellation, pigmentation and type of reserve food. Out of this, the main criteria used in algal classification grouping of algae is

A. chemical composition of cell wall

B. type of pigmentation

C. nature of food storage

D. shape and colony formation.

**Answer: B**

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**7.** Study of Algae is called

A. phycology

B. phytology

C. mycology

D. phenology

**Answer: A**

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**8.** Choose the correct statement.

A. (a) Algae show embryo stage

B. (b) Algae show only haplontic life cycle

C. (c) Algae are plants as they possess cell wall, chl a and starch food.

D. (d) all of the above

**Answer: C**

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**9.** All algae possess

A. (a) chl a and b

B. (b) chl a,carotenes and phycobilin

C. (c) chl b and carotenes

D. (d) chl a and carotenoids

**Answer: D**

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**10.** Largest acellular, green,marine alga ,popularly called umbrella plant is

A. Ulva

B. Acetabularia

C. Spirogyra

D. Volvox

**Answer: B**

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**11.** Kelps are

A. (a) fresh water algae

B. (b) marine green algae

C. (c) large marine parenchymatous brown algae

D. (d) large marine parenchymatous and algae.

**Answer: C**

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**12.** Red eye spot (stigma) is meant for

A. movement

B. vision

C. photoreception

D. photosynthesis

**Answer: C**

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**13.** Red snow is caused by

A. stigma

B. chloroplast

C. hypnospore

D. aplanospore

**Answer: C**

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**14.** The diploid stage is represented by one celled zygote only in

A. Chlamydomonas

B. Spirogyra

C. both 1 and 2

D. Funaria

**Answer: C**

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**15.** Meiosis in spirogyra/Chlamydomonas/Ulothrix occurs

A. as the zygospore germinates

B. during conjugation

C. during palmella formation

D. during formation of gametes

**Answer: A**

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**16.** The product of conjugation of Spirogyra is called

A. zoospore

B. zygospore

C. endospore

D. akinete

**Answer: B**

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**17.** Asexual spores with flagella in algae are called

A. zoospore

B. zygospores

C. aplanospores

D. hypnospores

**Answer: A**

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**18.** In spriogyra lateral conjugation takes place in the cells of

A. two adjacent cells of same filament

B. two cells of different filaments

C. among three filaments

D. within one cell of a filament

**Answer: B**

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**19.** What is the shape of chloroplast in Spirogyra ?

A. spiral,bank like

B. cup like

C. stellate like

D. U-like

**Answer: A**

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**20.** Gametes of Spirogyra are

A. biflagellated

B. uniflagellated

C. non-flagellated

D. diploid

**Answer: C**

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**21.** Agar-agar, an important solidifying agent used in culture medium, is obtained from

A. red algae

B. green algae

C. kelps

D. yellow algae

**Answer: A**

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**22.** Red algae show maximum photosynthesis in blue green light. Their main pigment to trap this light is

A. chlorophyll

B. phycoerythrin

C. chl a and xanthophyll

D. carotenes.

**Answer: B**

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**23.** Main pigment in phaeophyceae (Brown algae) is

A. phycocyanin

B. phycoerythrin

C. fucoxanthin

D. chlorophyll b

**Answer: C**

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**24.** Reserve food in Phaeophyceae is

A. laminarin and manitol

B. glycogen and sorbitol

C. floridean starch

D. glucose and starch.

**Answer: A**

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**25.** Sieved septa/trumpet hyphae occur in

A. kelps

B. All green algae

C. All red algae

D. Marine algae.

**Answer: A**

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**26.** Agar,Alginic acid,Carragenin and Funori in sea weeds are

A. proteins

B. phycocolloids

C. acids

D. fats

**Answer: B**

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**27.** Red algae are similar to blue-green algae in possession of

A. similar reserve food

B. nucleus

C. phycobilins

D. gas-vascuoles

**Answer: C**

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**28.** Red algae are able to grow deep in sea as

A. they can trap blue green light of short wave length in deept layer of water

B. they have clorophyll b to trap blue green light in deept layer of water

C. Both 1 and 2

D. both wrong.

**Answer: A**

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**29.** Irish Moss is

A. Chondrus (a red alga)

B. Ulva (green alga)

C. Porphyra (red alga)

D. Gelidium (red alga)

**Answer: A**

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**30.** A colourless parasitic red algae is

A. Harveyella

B. Batrachospermum

C. Porphyra (red alga)

D. Cephaleuros

**Answer: A**

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**31.** Red rust of tea is caused by

A. Cephaleuros virescence

B. Puccinia graminis

C. Harveyella

D. Chlamydomonas gametes

**Answer: A**

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**32.** A student collected an alga and found that its cells contain both chl a and chl d as well as phycoerythrin but no chl b and flagella. The alga bolongs to

A. Rhodophyceae

B. Phaeophyceae

C. Bacillariophyceae

D. Chlorophyceae

**Answer: A**

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**33.** Allophycocyanin is found in

A. Chlorophyceae

B. Rhodophyceae

C. Both 1 and 2

D. All marine algae

**Answer: B**

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**34.** The algal forms are mostly marine in:

A. Chlorophyceae

B. Phaeophyceae

C. Ascomycetes

D. All of these

**Answer: B**

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**35.** Algae and fungi are characterised by the possession of

A. mitospores

B. chloroplast

C. multicelluarl jacketed sex organs

D. unicellular jacketed sex organs

**Answer: A**

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**36.** What is common in Thallphytes, Bryophytes and pteridophytes?

A. Dependence on water

B. Presence of conductive system

C. Presence of cones

D. Absence of vascular tissue.

**Answer: A**

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**37.** Most of the green algae are

A. fresh water

B. marine

C. terrestrial

D. epiphytic/Epizoic

**Answer: A**

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**38.** Chlorophyll common between phaeophyceae and bacillariophyceae but absent in rhodophyceae is

A. chlorophyll a

B. chlorophyll b

C. chlorophyll c

D. chlorophyll e

**Answer: C**

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**39.** The structure in algae helping in perennation to tide over drought are

A. zoospores,hypnospores and aplanospores

B. zoospores,akinetes,zygospores

C. aplanospores,hypnospores and zygospores.

D. none of the above

**Answer: C**

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**40.** A single thylakoid per granules is found in the chloroplast of

A. red algae

B. green algae

C. brwon algae

D. yellow algae

**Answer: A**

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**41.** The evolutionary sequence is

A. Thallophyta-Bryophyta-Pteridophyta -Phanerogams

B. Protophyta-Phanerogams-Crypto-gams-Monocots

C. Archegoniatae-Embryophyte

D. Archegoniatae-Embryophyte-Phan-erogams-Monocots

**Answer: A**

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**42.** Sexual reproduction where a smaller and motile male gamete fuses with larger and motile female gamete known as

A. isogamy

B. anisogamy

C. oogamy

D. heterogamy

**Answer: B**

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**43.** Life cycle in Chlamydomonas / Ulothrix/ Spirogya is

A. haplontic

B. haplobiontic

C. diplontic

D. diplobiontic

**Answer: A**

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**44.** In Spirogyra, ladder like structure is formed in

A. scalariform conjugation

B. lateral conjugation

C. direct conjugation

D. parthenogenesis

**Answer: A**

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**45.** Which is known as Pond Scum/mermaids tresses?

A. Ulothrix

B. Nostoc

C. Spirogyra

D. Anabaena

**Answer: C**

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**46.** The gametangia and sporangia of Ulothrix are

A. jacketed and multicellular

B. jacketed and unicellular

C. nonjacketed and multicellular

D. non-jacketed and unicellular

**Answer: D**

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**47.** Alginic acid is present in the cell wall of

A. bacillariophyceae

B. Euglena

C. Laminaria

D. Diatoms

**Answer: C**

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**48.** In phaeophyceae, thylakoids are found in group as

A. 3's

B. 4's

C. 5's

D. 6's

**Answer: A**

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**49.** Match the following

`{:("Phaeophyceae","fucin"),("Cyanophyceae","r-phycoerythrin"),("Rhodophyceae","c-phycocyanin"),("Diatoms","Chrysolaminarin"):}

A. 1-A,2-B,3-C,4-D

B. 1-A,2-C,3-B,4-D

C. 1-C,2-B,3-A,4-D

D. 1-B,2-A,3-D,4-C

**Answer: B**

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**50.** Plants lacking seed and vascular tissue but forming spores and embryo are

A. bryophytes

B. pteridophytes

C. angiosperms

D. gymnosperms

**Answer: A**

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**51.** Bryophytes grow in moist, humid places as

A. they have no cuticle

B. require water for fertilization

C. they do not have roots

D. all of the above

**Answer: D**

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**52.** Bryophytes don't attain much height because

A. they do not have vascular supply

B. they do not have roots and mechanical tissue

C. they require water for transport of sperms

D. all of the above.

**Answer: D**

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**53.** Bryophytes can be distinguished from algae/fungi/thallophytes because they have

A. thallus,haploid ,gametophytic body

B. chloroplast

C. no conducting tissue

D. sterile jacket of cells around multicellular sex organs.

**Answer: D**

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**54.** Bryophytes show

A. asexual reproduction & zygotic meiosis

B. asexual reproduction & sporic meiosis

C. no asexual reproduction but sporic meiosis

D. gametophytic dominance and sporic meiosis

**Answer: D**


**55.** Rhizoids differ from roots as

A. rhizoids are always unicellular but roots are multicellular

B. rhizoids arise in gametophytes but roots in sporophytes

C. roots are branched but rhizoids are always unbranched.

D. all of the above.

**Answer: B**

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**56.** Predominant and largest gaemtophyte is of

A. Selaginella

B. Pinus

C. Moss

D. Rice

**Answer: C**

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**57.** Which one of the following is true moss

A. Cord moss

B. Club moss

C. Irish moss

D. All of the above.

**Answer: A**

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**58.** The spores produced in capsule in moss, germinate to form haploid structure called

A. leafy gametophyte

B. protonema

C. prothallus

D. peristome

**Answer: B**

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**59.** Sex organ of Funaria are

A. projected and sessile

B. projected and stalked

C. embedded and stalked

D. embedded and sessile

**Answer: B**

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**60.** Funaria is included in bryophytes because

A. it is rootless

B. it is without vascular supply

C. its sporophyte is parasite and attached to gametophyte

D. it grows near water.

**Answer: C**

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**61.** Sporophyte of Funaria is

A. Parasite on gametophyte as it is non green

B. semiparasite on gametophyte as it is green

C. independent of gametophyte as it is green

D. none of the above

**Answer: B**

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**62.** Archegonium of Funaria secretes mucilage rich in

A. sucrose

B. glucose

C. malic acid

D. citric acid

**Answer: A**

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**63.** Polytrichum has

A. heart shaped prothallus

B. foot,seta and capsule

C. vascular bundles

D. mitospores

**Answer: B**

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**64.** The sporophyte of Funaria begins development within

A. antheridium

B. archegonium

C. capsule

D. protonema

**Answer: B**

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**65.** Sexual reproduction in bryophytes is

A. oogamous

B. isogamous

C. anisogamous

D. hologamy

**Answer: A**

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**66.** Bryophytes called amphibians of plant kingdom as

A. they inhabits damp places

B. they have tracheids

C. their sex organs are multicellular and jacketed

D. their reproductive phase requires water.

**Answer: D**

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**67.** Bryophytes differ from pteridophytes in

A. having mitospores

B. the absence of vascular tissue system

C. lacking embryo stage

D. all of the stage

**Answer: B**

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**68.** Match List I with List II and pick up the correct choice from the under assigned codes

**List I**

(a) Thallophyta
(b) Embryophyta
(c) Bryophyta
(d) Tracheophyta

**List II**

(I) Embryophyta excluding Tracheophyta
(II) Bryophyta and Tracheophyta
(III) Phycophyta and Mycophyta
(IV) Bryophyta and Pteridophyta
(V) Pteridophyta and Spermatophyta

A.

| $a$ | $b$ | $c$ | $d$ |
|---|---|---|---|
| $IV$ | $II$ | $V$ | $I$ |

B. $\begin{matrix} a & b & c & d \\ III & II & I & V \end{matrix}$

C. $\begin{matrix} a & b & c & d \\ IV & II & I & III \end{matrix}$

D. $\begin{matrix} a & b & c & d \\ III & IV & I & V \end{matrix}$

**Answer: B**

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**69.** A liver wort is

A. a parasite causing infection of liver

B. a kind of virus infecting the liver

C. a flowering plant for treating liver disorders

D. a plant without differentiation into roots, stem and leaves.

**Answer: D**


**70.** Branched rhizoids and leafy gametophytes are characteristics of

A. all bryophytes

B. some bryophytes like mosses

C. algae

D. liverworts.

**Answer: B**

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**71.** In the life cycle of Funaria, spores are beginning of the generation

A. gametophyte

B. sporophyte

C. peristome

D. both 1 and 2

**Answer: A**

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**72.** Sphagnum is also called 'Peat Moss' because it

A. it grown in acidic marshes (bogs) and helps in peat formation

B. it is found in peat

C. it retains water

D. it is fossilized quickly.

**Answer: A**

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**73.** Moss plant is a

A. gametophyte

B. sporophyte

C. sometimes gametophyte and sometimes sporophyte

D. predominantly gametophyte with sporophyte attached to it.

**Answer: D**

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**74.** Bryophytes are close to pteridophytes in having

A. multicellualr jacketed sex organs

B. flagellated oosphere

C. mitospores in life cycle

D. all of the above

**Answer: A**


**75.** To which would you assign a plant that has xylem and phloem, produces meiospores embryo but lacks seeds and flowers?

A. Bryophytes

B. Pteridophytes

C. Tracheophytes

D. Spermatophytes.

**Answer: B**

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**76.** Vascular cryptogams and botanical snakes of plant kingdom are

A. pteridophytes

B. tracheophytes

C. angiosperms

D. spermatophytes

**Answer: A**

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**77.** Heterosporous pteridophytes produce

A. dioecious gametophytes

B. monoecious gametophytes

C. homothallic gametophytes

D. hermaphrodite gametophytes

**Answer: A**

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**78.** Rhizophore in Selaginella is

A. root stem

B. leaf

C. organ sui generis

D. a shoot

**Answer: D**

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**79.** Adiantum, Pteris/ferns are

A. heterosporous

B. homosporous

C. homogametic

D. isomerous

**Answer: B**

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**80.** The main plant body/dominant plant in life cycle of a fern/Pleridophytes is

A. gametophyte (x)

B. sporophyte (2x)

C. apogamous

D. aposporous

**Answer: B**

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**81.** Stem in ferns is underground, monopodial root stock and called

A. rhizome

B. corm

C. bulb

D. sucker

**Answer: A**

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**82.** Leaves of ferns are

A. (a) fronds with reticulate venation

B. (b) haploid

C. (c) pinnately compound and grow by apical meristem

D. (d) all of the above.

**Answer: C**

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**83.** Young fern leaves and rhizome are protected by :-

A. fronds with reticulate venation

B. leaf bases

C. ramenta

D. root stock

**Answer: C**

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**84.** Maiden Hair Fern is

A. Adiantum

B. Cheilanthis

C. Pteris

D. Dryopteris

**Answer: A**

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**85.** Sporangia bearing leaves in Pteridophytes are called

A. sporophylls

B. megaphylls

C. fronds

D. sorus

**Answer: A**

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**86.** Fern sperms (antherozoids) are

A. multicillated or multi flagellated and spirally coiled

B. biciliated and coiled

C. uninucleated and uniflagellated

D. multiciliated sickle shaped

**Answer: A**

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**87.** What represents the gametophytic generation in pteridophytes?

A. Main plant body

B. Heart shaped prothallus

C. Indusium

D. Stomium

**Answer: B**

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**88.** A collection of sporangia attached to placenta and covered over by indusium is known as

A. sorus

B. sporophyll

C. ramenta

D. spike

**Answer: A**


**89.** Archegonium of Funaria secretes mucilage rich in

A. (a) sucrose

B. (b) malic acid

C. (c) glucose

D. (d) citric acid

**Answer: B**

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**90.** A thick , multicelluar covering called indusium in ferns over sori is meant for

A. protection

B. producing spores

C. help in dispersal

D. has no role

**Answer: A**

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**91.** Antheridium in ferns is

A. multicellular and jacekted

B. stalked, hemispherical and borne ventrally in posterior part between rhizoids

C. its jacket hasd 32-48 cells

D. all of the above.

**Answer: A**

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**92.** Life cycle in ferns is

A. (a) haplontic

B. (b) diplohaplontic

C. (c) haplo-diplontic

D. (d) diplontic

**Answer: B**

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**93.** First land plant was represented by

A. (a) Ferns

B. (b) Grasses

C. (c) Gymnosperms

D. (d) Algae.

**Answer: A**

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**94.** Spike moss is

A. (a) Selaginella

B. (b) Funaria

C. (c) Lycopodium

D. (d) Adiantum

**Answer: A**

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**95.** Ferns are characterised by

A. cambium

B. xylem vessles

C. young leaves with circinate ptyxis and presence of ramenta

D. all of the above.

**Answer: C**

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**96.** Ferns resembie with mosses in which respect

A. (a) both are embryophytes

B. (b) both are tracheophytes

C. (c) both are sporophytes

D. (d) both are aquatic

**Answer: A**

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**97.** Heteromorphic alternation of generation is found in

A. Spirogyra

B. Mucor

C. Selaginella

D. All of these.

**Answer: C**

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**98.** In ferns, circinate ptyxis (vernation) is defined as

A. arrangement of leaf gaps in stems

B. coiling of young leaves

C. arrangement of sori on leaves

D. attachement of ramenta on young parts.

**Answer: B**

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**99.** If sperms of moss and fern are put together near the archegonium of fern, only the sperms of fern find entry into archeogonium, the reason being that

A. sperms of moss are killed by larger sperms of fern

B. archegonia of fern secretes a toxoid to kill moss of fern.

C. archegonia of fern secrete mucilage rich in malic acid to attract sperms of fern only

D. sperms of moss are less motile and find difficulty in entering archegonium.

**Answer: C**

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**100.** What may be the possible advantage occuring out of the presence of antheridia and archegonia on the underside of a fern prothallus?

A. They are protected from direct rays of the sun.

B. Capillary water accumulates on the underside of prothallus between its lower surface and the soil surface sex organs projecting in this water can be readily fertilised by the cilliated sperms which are chemotactically attracted by the archegonia

C. The sex organs remain protected from wind

D. Nutrients manufactured by the green prothallus can radily seep downwards to the sex organs due to the action of gravity.

**Answer: B**

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**101.** Walking fern is named so as

A. it knows walking

B. it is dispersed through walking of animals in forests

C. its spores are able to move with wind

D. it speads and propagates vegetatively by its leaf tips.

**Answer: D**

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**102.** A water fern capable of fixing atmospheric nitrogen and used as biofertilizer.

A. Azolla

B. Nostoc

C. Adiantum

D. Spirulina

**Answer: A**

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**103.** Which group of gymnosperms is close to angiosperms?

A. Gnetales

B. Ginkgoales

C. Cycadales

D. Confierales

**Answer: A**

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**104.** Gymnosperms are different from angiosperms in

A. absence of seeds

B. absence of ovary

C. absence of ovule

D. absence of sieve cells.

**Answer: B**

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**105.** Which one constitutes the dominant vegetation in colder regions?

A. Dicots

B. Gymnosperms

C. Monocots

D. Tracheophytes

**Answer: B**

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**106.** Which one of the following has not changed for the last several thousand years

A. Pinus excelsa

B. Ginkgo biloba

C. Welwitschia

D. Sequola

**Answer: B**

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**107.** Largest ovules, largest male and female gametes and tallest trees are found among

A. angiosperms

B. tree ferns and some monocots

C. gymnosperms

D. dicots

**Answer: C**

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**108.** Siphonogamy in traceophytes

A. (a) eliminates dependence on water

B. (b) brings pollen grains together

C. (c) carries spores

D. (d) protects embryo

**Answer: A**

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**109.** Cycas is a

A. (a) living fossil

B. (b) fossil

C. (c) endangered species

D. (d) exotic species.

**Answer: A**

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**110.** The cortex and pith of stem Cycas serves as a source of 'Sago' which is a

A. (a) proteins

B. (b) cellulose

C. (c) starch

D. (d) mixture of starch and protein.

**Answer: C**

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**111.** Cycas has the largest

A. (a) ovule

B. (b) largest male gametophyte

C. (c) sperm

D. (d) all of the above.

**Answer: C**

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**112.** Cycas is

A. hermaphrodite

B. dioecious

C. monoecious

D. none of these

**Answer: B**


**113.** Organised female cone is absent in

A. Ephedra

B. Pinus

C. Cycas

D. None of these

**Answer: C**

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**114.** Cycas differs from Pteris in having

A. vessels and tracheids

B. motile sperms

C. pollen tube

D. archegonia

**Answer: B**

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**115.** Coralloid roots of Cycas are useful in

A. absorption of water

B. Nitrogen fixation

C. absorption

D. respiration from air.

**Answer: C**

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**116.** Coralloid roots of Cycas possess a symbiotic alga

A. Aulosira

B. Anabaena

C. Oscillatoria

D. Chlorella

**Answer: B**

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**117.** Phloem of gymnosperms differ from angiosperms in

A. having no companion cells

B. having no sieve cells

C. having phloem fibre

D. having phloem parenchyma

**Answer: A**

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**118.** Foliage leaves (needles) in Pinus are borne by

A. dwarf shoots

B. long shoots

C. both 1 and 2

D. female strobilus

**Answer: A**

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**119.** At the time of dehiscence winged pollen grain of Pinus is

A. 1 celled

B. 4 celled

C. 3 celled

D. 2 celled

**Answer: B**

Watch Video Solution

**120.** Simplest and highly reduced archegonium is found in

A. Pinus

B. Fern

C. Bryophytes

D. Liver worts/mosses

**Answer: A**

Watch Video Solution

**121.** Microsporangia of Cycas occur over microsporophyll

A. abaxial

B. adaxial

C. lateral

D. margin.

**Answer: A**


**122.** Number of generations present in Pinus seed are

A. 2

B. 3

C. 1

D. 4

**Answer: B**

Watch Video Solution

**123.** Ploidy in wing of pollen grain and wing of seed of Pinus is

A. x in pollen grain and 2x in seed

B. 2x in pollens and 2x in seed

C. being an outgrowth, chromosomes are absent

D. 1/2 x in wing of pollens and polyploidy in seed.

**Answer: A**

Watch Video Solution

**124.** The phenomenon of sulphur shower in pine forest is due to

A. dispersal of winged pollens of Pinus

B. dispersal of winged seeds of Pinus

C. bursting of thrid year female cone of Pinus

D. none of the above

**Answer: A**

Watch Video Solution

**125.** Which is homologous?

A. Leaves of Moss and Selaginella

B. Roots of ferns and moss

C. Endosperm of Pinus and prothallus of Adianlum

D. Pinus endosperm & endosperm of Maize

**Answer: C**

Watch Video Solution

**126.** In pinus

A. seeds and ovules are winged

B. endosperm is triploid

C. fruits and flowers absent and seeds are naked

D. all of the above

**Answer: C**

Watch Video Solution

**127.** Chilgoza' is a fruit, obtained from a gymnosperm which is

A. Pinus Roxburghii

B. Pinus geradiana

C. Cycas revoluta

D. Abies balsamiana

**Answer: B**

Watch Video Solution

**128.** Ephedrine obtained from the stem of Ephedra is given to cure

A. gastric disorders

B. respiratory disorders

C. arhritis

D. all of the above.

**Answer: B**

Watch Video Solution

**129.** No Gymnosperms is

A. annual and herbaceous

B. perennial and herbaceous

C. xerophyte and woody

D. tree and shrubby

**Answer: A**

Watch Video Solution

**130.** Vessels are absent in the xylem of

A. angiosperms

B. monocots

C. gymnosperms excluding gnetales

D. pteridophytes excluding ferns.

**Answer: C**

Watch Video Solution

**131.** One of the main evolutionary features of the alternation of generations from algae to flowering plants is.

A. gradual elaboration of gametophyte

B. gradual elaboration of sporophyte

C. elimination of sporophytic tissue

D. elimination of gametophyte.

**Answer: B**

Watch Video Solution

**132.** In which of the following the angiosperms resemble the Gymnosperms

A. nature of endosperm

B. presence of vessels

C. siphonogamy

D. double fertilization.

**Answer: C**

Watch Video Solution

**133.** In gymnosperms and angiosperms the pollen tube carries the male gamete to the site of fertilization and thus does not require water for fertilization. It is referred as

A. porogamy

B. siphonogamy

C. mesogamy

D. syngamy.

**Answer: B**

Watch Video Solution

**134.** What is true for Cycas?

A. (a) Cycas is dioecious

B. (b) Ovules without integument

C. (c) Largest female cone

D. (d) of the above.

**Answer: A**

Watch Video Solution

**135.** Which is incorrect about Cycas

A. (a) xylem has vessels

B. (b) young leaves show circinate vernation

C. (c) does not have organised female flower

D. (d) motile sperms

**Answer: A**

Watch Video Solution

**136.** Cycas reproduces vegetatively by

A. sporophylis

B. bulbils

C. fragmentation

D. rhizome

**Answer: B**

Watch Video Solution

**137.** Which one is common between Funaria and Pinus?

A. No fruits are produced

B. No seeds are produced

C. Pollen tube is formed

D. Antheridia and archegonia are present

**Answer: A**

Watch Video Solution

**138.** Among the following, which does not belong to sporophyte generation in Pinus?

A. Long shoot

B. Dwarf shoot

C. roots are branched but rhizoids are always unbranched.

D. Endosperm

**Answer: D**

Watch Video Solution

**139.** Needle in Pinus represents

A. root

B. scale leaf

C. follage leaf

D. spur

**Answer: C**

Watch Video Solution

**140.** The male cone of Pinus is formed of

Or

In pinus male cone bears is large number of

A. antheridia

B. megasporophylls

C. microsporophylls

D. ligules

**Answer: C**

Watch Video Solution

**141.** Seeds of Pinus are

A. adaxial, endospermic and polycotyledonous

B. abaxial,monocotyledonous and endospermic

C. hypogeal,endospermic and monocot

D. monocotyledonous,epigeal.

**Answer: A**

Watch Video Solution

**142.** Which of the following is not a correct match?

A. (a) Maiden hair fern : Ginkgo

B. (b) Bog Moss : Sphagnum

C. (c) Cord moss : Funaria

D. (d) Walking fern : Adiantum

**Answer: A**

Watch Video Solution

**143.** Following are given some trends in the evolution of plants

A. origin of vascular system

B. origin of rhizoids

C. origin of seeds

D. origin of flowers.

**Answer: C**

Watch Video Solution

**144.** Characteristic of Angiosperms which distinguish them from gymnosperms

A. (a) presence of fruits and flowers

B. (b) double fertilization and triploid endosperm formed after double fertilization

C. (c) companion cells in phloem and vessels in xylem

D. (d) all of the above.

**Answer: D**

Watch Video Solution

**145.** Beginning with germination of a moss spore, what is the sequence of structures that develop after germination?

I. embryo II. Gametes III. Sporophyte IV. Potonema V. gametophore

A. IV,V,III,I,II

B. V,IV,III,II,I

C. III,IV,V,II,I

D. IV,V,II,I,III

**Answer: D**

Watch Video Solution

**146.** Angiosperms resemble gymnosperms in

A. presence of companion cells

B. type of fertilization

C. presence of ovules

D. nature of endosperm

**Answer: C**

Watch Video Solution

**147.** An example of a marine angiosperm thriving in shallow seas is

A. Zostera

B. Wolffia

C. Pistia

D. Rhizophora

**Answer: A**

Watch Video Solution

**148.** Which one of the following is considered important in the development of seed habit

Or

Selaginella has the character of evolutionary importance. That character is

A. Haplontic life cycle

B. Fee-living gametophyte

C. Dependent sporophyte

D. Heterospory

**Answer: D**

Watch Video Solution

**149.** Which of the following is grouped under phanerogams?

A. Algae show embryo stage

B. Bryophytes

C. Gymnosperms

D. Pteridophytes

**Answer: C**

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**150.** The stamen in angiosperms is homologous to which part in gymnosperm and pteridophytes?

A. Microsporangium

B. Microsporophyll

C. Megasporophyll

D. Male gametophyte

**Answer: B**

Watch Video Solution

**151.** The megasporophyll of vascular plants is analogous to which structure in angiosperms

A. stamen

B. ovule

C. carpel

D. leaf

**Answer: C**

Watch Video Solution

**152.** To which group of plants does the Banyan tree belong

A. angiosperms

B. Gymnosperms

C. cryptogams

D. phaeophyta

**Answer: A**

Watch Video Solution

**153.** Mark the national tree

A. (a) Mangifera indica (Mango tree)

B. (b) Ficus benghalensis (banyan tree)

C. (c) Ficus religiosa (pipal tree)

D. (d) Azadirachta indica (Neem tree)

**Answer: B**


**154.** Of the four widely known systems of classification one remains less phylogenetic and more natural, which is of

A. Engler & Prantl

B. Benthan & Hooker

C. Rendle

D. Hutchinson

**Answer: B**

Watch Video Solution

**155.** Genera Plantarum was written by

A. Benthan and Hooker

B. Hutchinson

C. Rendle

D. Engler and Prantl

**Answer: A**

Watch Video Solution

**156.** Dryopteris differs from Funaria in having

A. an independent gametophyte

B. an independent sporophyte

C. swimming antherozoids

D. archegonia

**Answer: B**

Watch Video Solution

**157.** Angiosperms have dominated the land flora primarily by their

A. nature of self pollination

B. property of producing large number of seeds

C. domestication by man

D. power of adaptability in diverse habitat.

**Answer: D**

Watch Video Solution

**158.** In which of the following group, all the organisms are homosporous

A. (a) Funaria, Salvinia, Dryopteris

B. (b) Azolla, Selaginella, Anthoceros

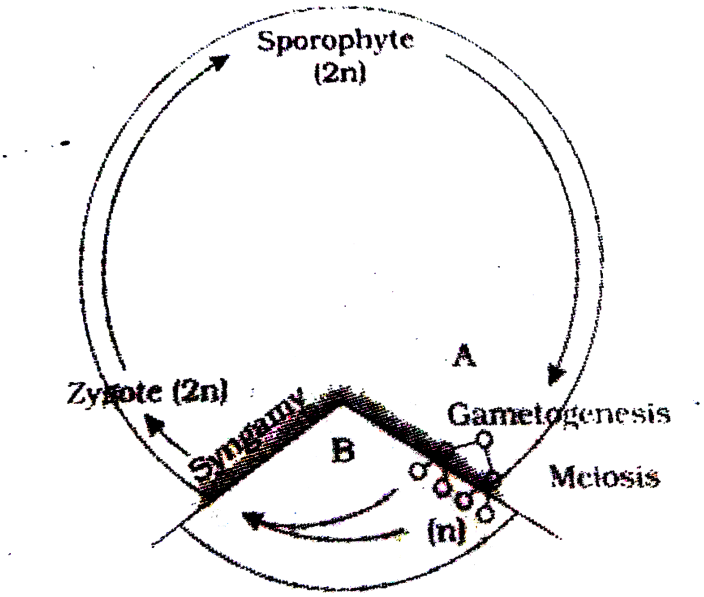
C. (c) Salvinia, Cedrus, Funaria

D. (d) Sphagnum, Pteris, Adiantum

**Answer: D**

Watch Video Solution

**159.** See the given life cycle pattern and choose the option which it correctly represents.




A. Haplontic

B. Diplontic

C. Haplo-diplontic

D. 1 or 3

**Answer: B**

Watch Video Solution

**160.** Read the following statements carefully

(i) Protonema is found in mosses and is absent in liverworts.

(ii) In Marchantia,the sporophyte is divided into the foot, seta and capsule

(iii) Archegonia are partially embedded in pteridophytes

(iv) Gymnosperms do not possess vessels in xylem except in some gnetophytes.

A. i,ii,iii

B. ii,iv

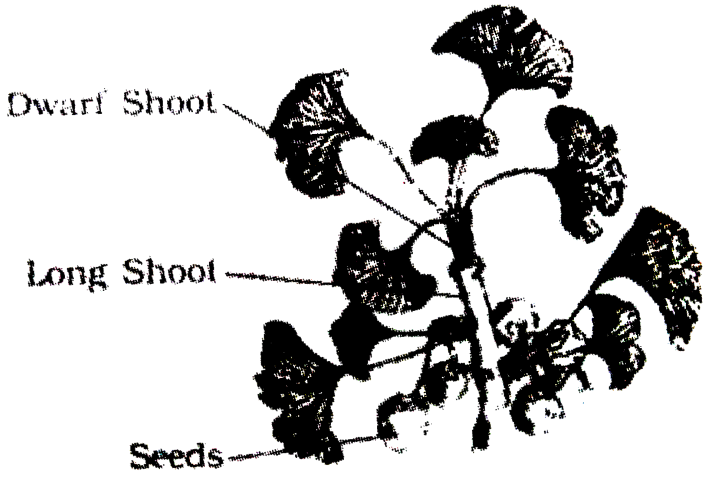
C. i,iii,iv

D. All are correct.

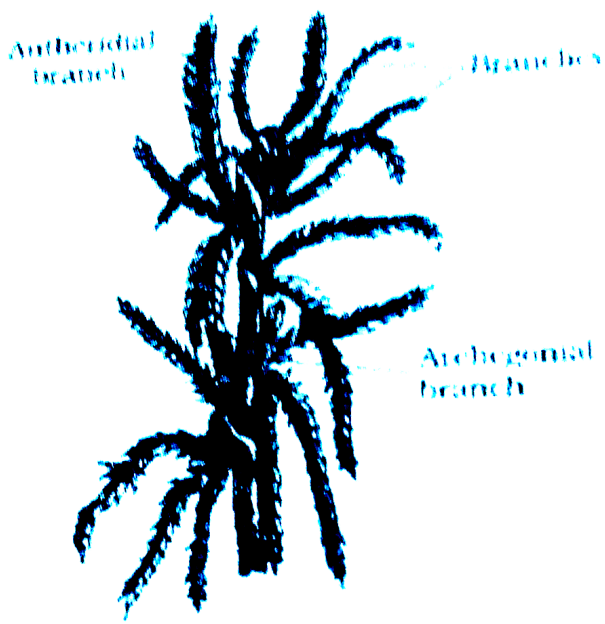
**Answer: C**

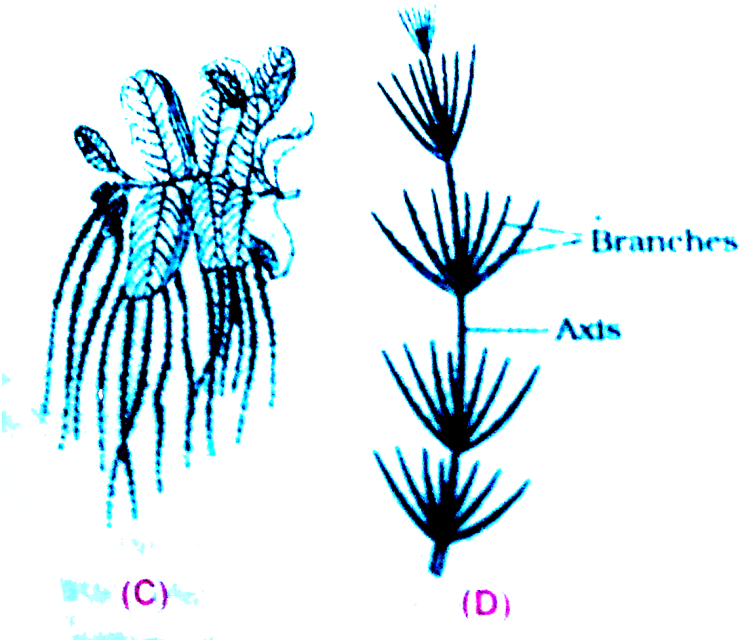
Watch Video Solution

**161.** Find the correct match which identifies these diagrams




(A)




| | *A* | *B* | *C* | *D* |
|---|---|---|---|---|
| A. (a) | Chara | Sphagnum | Salvinia | Ginkgo |

B. (b)

| $A$ | $B$ | $C$ | $D$ |
|---|---|---|---|
| Ginkgo | Chara | Sphagnum | Salvinia |

C. (c)

| $A$ | $B$ | $C$ | $D$ |
|---|---|---|---|
| Sphagnum | Ginkgo | Chara | Salvinia |

D. (d)

| $A$ | $B$ | $C$ | $D$ |
|---|---|---|---|
| Ginkgo | Sphagnum | Salvinia | Chara |

**Answer: D**

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**162.** The algal group which most biologists believe to have led to evolution of land plants is

A. phaeophyta

B. Rhodophyta

C. Chlorophyta

D. Chrysophyta

**Answer: C**

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**163.** Phycocolloids are found in the cell walls of

A. (a) Diatoms

B. (b) Spirogyra

C. (c) Red and brown algae

D. (d) All algae

**Answer: C**

Watch Video Solution

**164.** Which one of the following is not characteristic of all divisions of vascular plants?

A. (a) An alternation of generations

B. (b) The development of seeds

C. (c) Differentiation into roots, stems and leaves

D. (d) Xylem and phloem for transporting materials between roots and leaves.

**Answer: B**

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**165.** Red algae differs from green and brown algae in

A. (a) No chlorophyll a

B. (b) No differentiated cells

C. (c) No phycocyanin within their cells

D. (d) No flagellated stages in their life cycles

**Answer: D**

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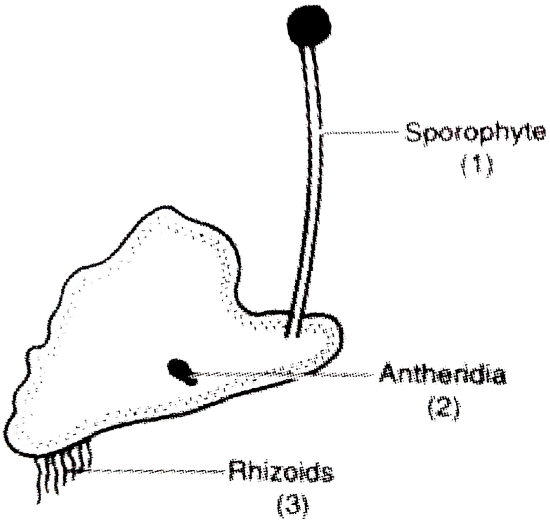
**166.** Given is a picture of bryophyte. The correct ploidy levels of the indicated structures are




A. (a) (1) - 2n, (2) - n, (3) - n

B. (b) (1) - n, (2) - n. (3) - n

C. (c) (1) - 2n, (2) - 2n, (3) - 2n

D. (d) (1) - 2n, (2) - n, (3) - 2n

**Answer: A**

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**167.** Bryophytes resemble algae in the following aspects

A. (a) Differentiation of the plant body into root,stem and heterotrophic mode of nutrition

B. (b) Thallus-like plant body, lack of vascular tissue: absence of root: and autotrophic mode of nutrition

C. (c) Thallus-like plant body, presence of roots, and autotrophic mode of nutrition

D. (d) Filamentous body: presence of vascular tissue: and autotrophic mode of nutrition

**Answer: B**

 Watch Video Solution

**168.** Funaria differs from Pteridium in the absence of

A. (a) Root

B. (b) Seed

C. (c) Archegonia

D. (d) Embryo

**Answer: A**

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**169.** Prothallus is

A. (a) Gametophyte, monoecious, autotroph present in pteridophytes

B. (b) Gametophyte, monoecious, autotroph found in bryophytes

C. (c) Sporophyte, dioecious, heterotroph found in bryophytes

D. (d) Gametophyte, dioecious, heterotroph present in pteridophytes

**Answer: A**

**170.** In gymnosperms, how many male gametes are produced by each pollen grain ?

(a) 4

(b) 3

(c) 2

(d) 1

A. (a) 4

B. 3

C. 2

D. 1

**Answer: C**

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**171.** Which arrangements of the organisms represents a rank ordering (based on size/importance) from dominant gametophyte on the left to dominant sporophyte on the right?

A. Polytrichum,Cycas,Equisetum

B. Lycopodium,Zostera,Riccia

C. Sphagnum,Pteridium,Cedrus

D. Pinus,Selaginella,Marchantia

**Answer: C**

Watch Video Solution

**172.** Red algae do not have

A. zoospores,hypnospores and aplanospores

B. Cellulose in cell wall

C. Floridean starch

D. Sexual reproduction.

**Answer: A**

Watch Video Solution

**173.** Select the wrong statement

A. Gymnosperm do not have antheridia

B. Cycas and ferns have multiflagellate gametes

C. Selaginella is a heterosporous non seed plant

D. Pinus tree is dioecious

**Answer: D**

Watch Video Solution

**174.** Ovule of Pinus can be called

A. Female gametophyte

B. Male gametophyte

C. Megasporangium

D. Integumented megasoporangium

**Answer: D**

Watch Video Solution

**175.** Conifers differ from grasses in the

A. Production of seeds from ovules

B. Lack of xylem tracheids

C. Absence of pollen tubes

D. Formation of endosperm before fertilization.

**Answer: D**

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**176.** "Ordines Anomali" of Benthan and Hooker includes

A. (a) Seed plants showing abnormal forms of growth and development

B. (b) Plants represented only in the fossil state.

C. (c) Plants described in the literature but which Bentham and Hooker did not see in original

D. (d) A few orders which could not be placed satisfactorily in the classification.

**Answer: D**

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**177.** Which of the following is a wrong combination?

A. (a) Haploid endosperm, archegonia present but antheridium absent - Gymnosperms

B. (b) Triploid endosperm and 7-celled female gametophyte called embryo sac - Angiosperms

C. (c) Embryo stage absent, reproduction by spores - Algae

D. (d) Gametophyte independent, biflagellate gametes and reproduction by accessory spores - Mosses.

**Answer: D**

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**178.** Green algae are also included among the items carried by astronauts in a space ship Which of the following are the reasons for this?

1. These being very simple plants, are amenable to a variety of experiments. 2. These may provide nourishment to the persons on the space ship.

3. These act as a source of oxygen.

Select the correct answer using the codes given below.

A. (a) 1,2 and 3

B. (b) 1 and 3

C. (c) 1 and 2

D. (d) 2 and 3

**Answer: A**

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**179.** Consider the following pigments

1. Chlorophyll a

2. Chlorophyll b

3. Chlorophyll c

4. Carotenes

5. Biliproteins

6. Xanthophylls

The characteristic photosynthetic pigments present in Chlorophyceae would include

A. (a) 1,2,3 and 4

B. (b) 1,3,4, and 5

C. (c) 2,3,5 and 6

D. (d) 1,2,4 and 6

**Answer: D**

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**180.** Which one of the following pairs is not correctly matched?

A. Red Sea: Trichodesmium erythreum a cyanobacterium

B. Red Tides: Rhodymenia, a red algae

C. Red Snow: Chalmydomonas nivalis, a green algae

D. Red Rust of Tea: Cephaleuros virescens, a green algae

**Answer: B**

Watch Video Solution

**181.** Consider the following statements

1. In pteridophytes, the phloem lacks companion cells. 2. The xylem lacks vessels in majority of pteridophytes. 3. Heterosporous pteridophytes have monoecious gametophytes. 4. Water is essential for fertilization in

pteridophytes.

Which of these statements are correct?

A. 1,2,3 and 4

B. 2,3 and 4

C. 1 and 3

D. 1,2 and 4

**Answer: D**

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**182.** Which one of the statements is correct ?

A. Leaves of conifers are perennial

B. All vascular plants have Sieve Tube Members

C. The red and edible flesh of strawberry is the carpel tissue

D. Conifers have motile gametes.

**Answer: A**

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**183.** Which of the following structures in Pinus are haploid

A. Megaspore,endosperm and embryo

B. Microspore,megaspore and endosperm

C. Megaspore, integument and root

D. Microspore,leaf and endosperm

**Answer: B**


**184.** More than one answer may be correct : Marchantia polymorpha

1. Is dioecious

2. Possesses antheridiophores and archegoniophores

3. Lacks foot and seta in its sporophyte

4. Is heterosporous.

A. 1 and 2

B. 3 and 4

C. 1,2 and 3

D. 2 and 3

**Answer: A**

Watch Video Solution

**185.** Consider the following statemetns

1. The thylakoids of blue-green algae are arranged singly in the stroma of chloroplasts.

2. In blue-green algae, the thylkoids are not only the sites for photosynthesis but also for respiration

Which of the statements given above is/are correct?

A. (a) 1 only

B. (b) 2 only

C. (c) both 1 and 2

D. (d) Neither 1 nor 2

**Answer: B**


**186.** In gymnosperms the pollen chamber represents

A. (a) cavity in the ovule in which pollen grains are stored after pollination

B. (b) opening in the megagametophyte through which the pollen tube approaches the egg

C. (c) The microsporangium in which pollen grains develop

D. (d) cell in the pollen grain in which the sperms are formed.

**Answer: A**

Watch Video Solution

**187.** Bryophytes can be compared with amphibians since both are

(i) Autotrophic (ii) Dependent on water for reproduction

(iii) Without endoskeleton (iv) Devoid of impervious body surface (v) With separate sexes

A. ii,iv

B. i,ii,iv

C. ii,iii,iv

D. i,iii,iv

**Answer: A**

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**188.** In which of the following groups all the organisms contain chlorophyll c

A. Ectocarpus,Fucus, Sargassum,Laminaria

B. Macrocystis,Batrachospermum,Polysliphonia,Characium

C. Chlamydomonas,Asterocystis,Ulothrix,Gelidium

D. Harveyella,Chondrus,Volvox,Chlorella

**Answer: A**

Watch Video Solution

**189.** In which of the following group all the orgaisms contain phycobilins?

A. Anabaena,Gelidium,Nereocystis,Zoochlorella

B. Nostoc,Porphyra,Chondrus,Batrachospermum

C. Oscillatoria,Sargassum,Volvox,Fucus

D. None of the above.

**Answer: B**

Watch Video Solution

**190.** In which of the following group all the organisms lack motle stages in the life cycle?

A. Chlamydomonas,Ulothrix,Sargassum

B. Chondrus,Gelidium,Batrachospermum

C. Chlorella,Polysiphonia,Volvox

D. All of the above

**Answer: B**

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**191.** Go through the following statements

(i) IN chlorophyceae the flagella re 2 in number, unequal in size and lateral in position

(ii) In phaeophyceae flagella are 2-8 in number, equal in size and apical in position (iii) Chlorella and Spirullina re rich in proteins and are used as food supplements even by space travellers. (iv) The leaves in pteridophyta are microphylls as in Selaginella or macrophylls as in ferns. Which of these are correct

A. a) i,ii,iii

B. b) ii,iii

C. c) i,ii,iv

D. d) iii,iv

**Answer: D**

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**192.** In a moss the sporophyte

A. (a) arises from a spore produced from the gametophyte

B. (b) manufactures food for itself, as well as for the gametophyte

C. (c) is partially parasitic on the gametophyte

D. (d) Produces gametes that give rise to the gametophyte

**Answer: C**

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**193.** Which of these is mismatched

A. (a) phanero-visible

B. (b) krypto-concealed

C. (c) gymno-naked

D. (d) thallus-diploid

**Answer: D**

Watch Video Solution

**194.** Which of the following is a vascular cryptogam

A. (a) Marchantia

B. (b) Cedrus

C. (c) Equisetum

D. (d) Ginkgo

**Answer: C**

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**195.** Which one of the following plants is monoecious

A. (a) Cycas

B. (b) Papaya

C. (c) Marchantia

D. (d) Pinus

**Answer: D**

Watch Video Solution

**196.** Which one of the following has haplontic life cycle

A. (a) Ustilago

B. (b) Wheat

C. (c) Funaria

D. (d) Polytrichum

**Answer: A**


**197.** Mannitol (sugar alcohol) is the stored food in

A. Fucus

B. Gracillaria

C. Chara

D. Porphyra

**Answer: A**

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**198.** Young leaves of Cycas show

A. Simple venation

B. Circinate venation

C. Alternate arrangement

D. Opposite arrangement

**Answer: B**

Watch Video Solution

**199.** Algae have cell wall made up of

A. Cellulose, hemicellulose and pectins

B. Cellulose,galactans and mannans

C. Hemicellulose,pectins and proteins

D. Pectins, cellulose and proteins

**Answer: B**

Watch Video Solution

**200.** Which of the following algal groups has no motile stage

A. Brown

B. Yellow

C. Red

D. Green

**Answer: C**

Watch Video Solution

**201.** Sphagnum is an example of

A. Moss

B. Pteridophyte

C. Algae

D. Gymnosperm

**Answer: A**

Watch Video Solution

**202.** Consider the following four statements whether they are correct or worng.

A. The sporophyte in liverworts is more elaborate than that in mosses

B. Salvinia is heterosporous

C. The life-cycle in all seed-bearing plants is diplontic

D. In Pinus male and female cones are borne on different trees

**Answer: B**

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**203.** Selaginella and Salvinia are considered to represent a significant step toward evolution of seed habit because

A. Female gametophyte is free and gets dispersed like seeds

B. Female gametophyte lacks archegonia

C. Megaspores possess endosperm and embryo surrounded by seed coat

D. Embryo develops in female gametophyte which is retained on parent sporophyte

**Answer: D**

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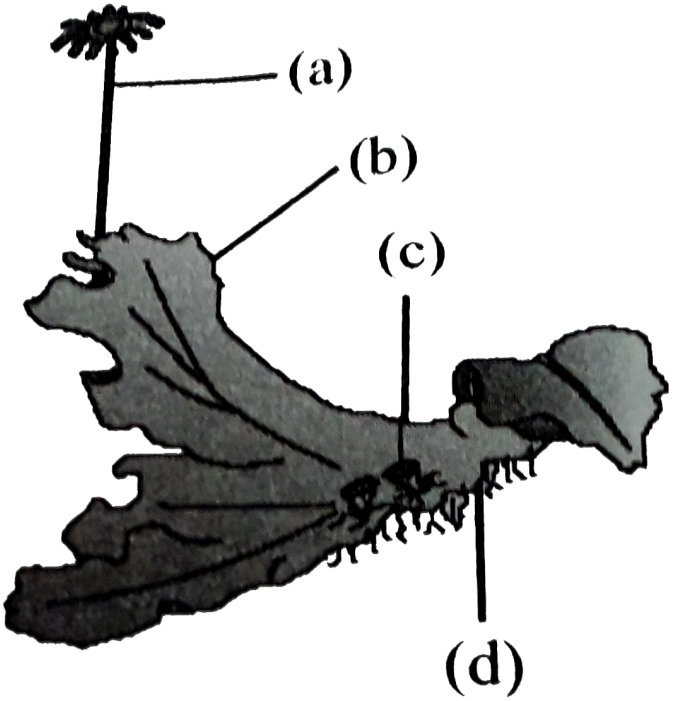
**204.** Examine the figure given below and select the right option given all the four parts (a,b,c,d) correctly




identified.

A.

| $a$ | $b$ | $c$ | $d$ |
|---|---|---|---|
| Archegonia | Female thallus | Gemmacup | Rhizoids |

B.

| $a$ | $b$ | $c$ | $d$ |
|---|---|---|---|
| Archegoniphore | Female thallus | Bud | Foot |

C.

| $a$ | $b$ | $c$ | $d$ |
|---|---|---|---|
| Seta | Sporophyte | Protonema | Rhizoids |

D.

| $a$ | $b$ | $c$ | $d$ |
|---|---|---|---|
| Anteridiophore | Male thallus | Globule | Roots |

**Answer: A**

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**205.** Archegoniophore is present in

A. Marchantia

B. Chara

C. Adiantum

D. Funaria

**Answer: A**

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**206.** Compared with the gametophytes of the bryophytes, the gametophytes of vascular plants tend to be:-

A. smaller but to have larger sex organs

B. larger but to have smaller sex organs

C. larger and to have larger sex organs

D. smaller and to have smaller sex organs

**Answer: D**

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**207.** The gametophyte is not an independent, free-living generation in

A. Polytrichum,Cycas,Equisetum

B. Adiantum

C. Marchantia

D. Pinus

**Answer: D**

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**208.** Asexual reproduction in Liverworts takes place by the formation of specialized structures called

A. Gemmae

B. zoospores,akinetes,zygospores

C. Sporangia

D. Microspores

**Answer: A**

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**209.** Pinus belongs to the class

A. gnetopsida

B. cycadopsida

C. coniferopsida

D. sphenopsida

**Answer: C**

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**210.** Read the following five statements (A-E) and answer as asked next to them

(A) In Equisetum the female gametophyte is retained on the parent sporophte

(B) In ginkgo male gametophyte is not independent

(C) Sexual reproduction in Volvox is isogamous

(D)The sporophyte in Riccia is more developed than that in polytrichum

(E) The spores of slime moulds lack cell walls

How many of the above statements are correct

A. Four

B. One

C. Two

D. Three

**Answer: B**

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**211.** Which one of the following pairs is wrongly matched?

A. viroids-RNA

B. Mustard-Synergids

C. Ginkgo-Archegonia

D. Salvinia-Prothallus

**Answer: D**

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**212.** How many organism in the list given below are autotrophs Lactobacillus, Nostoc, Chara, Nitrosomonas, Nitrobacter, Streptomuces, Sacharomyces, Trypanosoma, Porphyra Wolfia

A. Six

B. Three

C. Four

D. Five

**Answer: A**

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**213.** Cycas and Adiantum resemble each other in having

A. Motile sperms

B. Cambium

C. Vessles

D. Seeds

**Answer: A**

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**214.** Which one of the following is common to multicellular fungi, filamentous algae and protonema of mosses

A. Members of kingdom plantae

B. Mode of Nutrition

C. Multiplication by fragmentation

D. Diplontic life cycle

**Answer: C**

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**215.** Which one of the following is a correct statement

A. In gymnosperms female gametophyte is free-living

B. Anteridiophores and archegoniophores are present in pteridophytes

C. Origin of seed habit can be traced in pteridophytes

D. Pteridophyte gametophyte has a protonemal and leafy stage.

**Answer: C**

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**216.** Sex-organs of pteridophytes are

A. Multicelluar and jacketed

B. Unicellular and jacketed

C. Unicellular and non jacketed

D. Multicellular and non jacketed

**Answer: A**

Watch Video Solution

**217.** The chloroplasts of algae usually lack

A. Quantasomes

B. Lamellae

C. Pigments reticulum

D. Grana

**Answer: D**

Watch Video Solution

**218.** First amphibian plants of the plant kingdom are

A. Thallophytes

B. Bryophytes

C. pteridophytes

D. Gymnosperms

**Answer: B**

Watch Video Solution

**219.** The leaves of fern plants are called

A. macrophylls

B. microphylls

C. sporophylls

D. megasporophylls

**Answer: A**

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**220.** The tallest tree species of the gymnosperms is

A. Cycas

B. Pinus

C. Sequoia

D. None of the Above

**Answer: C**

Watch Video Solution

**221.** Besides paddy fields, cyanobacteria are also found inside vegetative part of:

A. Equisetum

B. Psilotum

C. Pinus

D. Cycas

**Answer: D**

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**222.** Select the wrong statement

A. In Oomycetes female gamete is smaller and motile, while male gamete is larger and non-motile

B. Chlamydomonas exhibits both isogamy and anisogamy and Fucus shows oogamy

C. Isogametes are similar in structure, function and behaviour

D. Anisogametes differ either in structure, function or behaviour.

**Answer: A**

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**223.** Which of the following represent maximum number of species among global biodiversity

A. Fungi

B. Mosses and Ferns

C. Algae

D. Lichens

**Answer: A**

Watch Video Solution

**224.** Male gametophyte with least number of cells is present in

A. Pinus

B. Pteris

C. Funaria

D. Lilium

**Answer: D**

Watch Video Solution

**225.** Which one of the following shows isogamy with non-flagellated gametes

A. Spirogyra

B. Sargassum

C. Ectocarpus

D. Ulothrix

**Answer: A**

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**226.** An alga which can be employed as food for human being is

A. polysiphonia

B. Ulothrix

C. Chlorella

D. Spirogyra

**Answer: C**

Watch Video Solution

**227.** Which of the following is responsible for peat formation?

A. Sphagnum

B. Marchantia

C. Riccia

D. Funaria

**Answer: A**

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**228.** In which of the following, gametophyte is not independent and free living ?

A. Marchantia

B. Pteris

C. Pinus

D. Funaria

**Answer: C**

Watch Video Solution

**229.** Read the following five statements (A to E) and select the option with all correct statement

(A) Mosses and Lichens are the first organisms to colonise a bare rock.

(B) Seloginella is a homospourous pteridophyte.

(C) Coralloid roots in Cycas have VAM.

(D) Main plant body in bryophytes is gametophytic whereas in pteridophytes it is sporophytic.

(E) In Gymnoperms, male and female gametophytes are present within sporangia located on sporophyte.

A. B,C and D

B. A,D and E

C. B,C and E

D. A,C and D

**Answer: B**

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**230.** Male gametes are flagellated in

A. Anabaena

B. Ectocarpus

C. Spirogyra

D. Polysiphonia

**Answer: B**

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**231.** Which one of the following statements is wrong?

A. (a) Agar-agar is obtained from Gelidium and Gracilaria

B. (b) Chlorella and Spirullina are used as space food

C. (c) Mannitol is stored food in Rhodophyceae

D. (d) Algin and carrageenan are products of algae.

**Answer: C**

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**232.** Which one is a wrong statement?

A. (a) Archegonia are found in Bryophyta, Pteridophyta and Gymnosperms

B. (b) Mucor has biflagellate zoospores

C. (c) Haploid endosperm is typical feature of gymnosperms

D. (d) Brown algae have chlorophyll a and c,and fucoxanthin

**Answer: B**

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**233.** Male gametophyte in angiosperms produces:

A. (a) two sperms and a vegetative cell

B. (b) single sperm and a vegetative cell

C. (c) single sperm and two vegetative cells

D. (d) three sperms

**Answer: A**

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**234.** Select the correct statement

A. Salvinia,Ginkgo and Pinus all are gymnosperms

B. Sequoia is one of the tallest trees

C. The leaves of gymnosperms are not well adapted to extremes of climate

D. Gymnosperms are both homosporous and heterosporous

**Answer: B**

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**235.** In bryophytes and pteridophytes, transport of male gametes requires

A. Insects

B. Birds

C. Water

D. Wind

**Answer: C**

Watch Video Solution

**236.** Conifers are adapted to tolerate extreme environmental conditons because of

A. Broad hardy leaves

B. Superficial stomata

C. Thick cuticle

D. Presence of vessels.

**Answer: C**

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**237.** Which one of the following statements is wrong.

A. Algae increase the level of dissovledf oxygen in the immediate environment.

B. Algin is obtained from red algae, and carrageenin from brown algae.

C. Agar-agar is obtained from Gelidium and Gracilaria

D. Laminaria and Sargassum are used as food.

**Answer: B**

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**238.** Zygotic meiosis is characteristic of

A. Marchantia

B. Fucus

C. Funaria

D. Chlamydomonas

**Answer: D**

Watch Video Solution

**239.** An example of colonial alga is

A. (a) Chlorella

B. (b) Volvox

C. (c) Ulothrix

D. (d) Spirogyra

**Answer: B**

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**240.** Select the mismatch

A. Pinus-Dioecious

B. Cycas-Dioecious

C. Salvinia -Heterosporous

D. Equisetum-Homosporous

**Answer: A**

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**241.** Life cycle of Ectocarpus and Fucus respectivley are

A. haplontic,diplontic

B. diplontic,haplodiplontic

C. haplodiplontic,diplontic

D. haplodiplontic,haplontic

**Answer: C**

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**242.** Which one is wrongly matched

A. Unicellular organism -Chlorella

B. Gemma cups-Marchantia

C. Biflagellate Zoospores-Brown algae

D. Uniflagellate gametes-Polysiphonia

**Answer: D**

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**243.** Which of the following statements is correct?

A. Stems are usually unbranched in both Cycas and Cedrus .

B. Horsetails are gymnosperms.

C. Selaginella is heterosporous, while salvinia is homosporous.

D. Ovules are not enclosed by ovary wall in gymnosperms.

**Answer: D**

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## Assertion And Reason

**1.** [A] : Flagella found in green algae are of tinsel type .

[R] : Flagella in algae are whiplash type .

A. (a) If both A and R are true and R is the correct explanation of A

B. (b) If both A and R are true but R does not explain A

C. (c) If A is true and R is false

D. (d) If both A and R are false

**Answer:**

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**2.** [A] : The mosses form dense growth .

[R] : They produce a large number of spores .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**3.** [A] : Pteridophytes and Gymnosperms are included in Archegoniates .

[R] : They have archegonia as female reproductive organ .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**4.** [A] : Pinus bears resin canals .

[R] : Resin canals are found in cortex and bounded by a glandular epithelial layer that secretes resin.

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**5.** [A] : In ferns , prothallus is club shaped .

[R] : Prothallus is derived from club shaped zoosporangia .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**6.** [A] : Either megasporophylls or microsporophylls are found in Gymnosperms .

[R] : Both mega and microsporophylls are common in

Gymnosperms . Megasporophylls are smaller than microsporophylls .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**7.** [A] : Rhizophore is considered to be stem structure .

[R] : Rhizophore develops from angle meristem present between the two branches of stem .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If A is false and R is true

**Answer:**

Watch Video Solution

**8.** [A] : In Selaginella/Pteris reduction division occurs during microspore formation only .

[R] : It was first shown by Zacharis and Strasburger in 1963 .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**9.** [A] : Neottia and Monotrapa are saprophytic angiosperms .

[R] : The association of a fungus with roots of higher plants is mycorrhiza.

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

Watch Video Solution

**10.** [A] : Fossil plants serve as an index for paleoclimates .

[R] : Because plant adaptations to varied environmental conditions are well known .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

Watch Video Solution

**11.** [A] : Coralloid root of Cycas is confined to bacterial zone.

[R] : Nucleus is absent in young sieve cells .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

Watch Video Solution

**12.** [A] : Heterospory has led to the reduction and specialization in spores .

[R] : Incipient heterospory has been found to occur in the fern Platyzoma microphylla.

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

Watch Video Solution

**13.** [A] : In Pinus only the dwarf roots become mycorrhizal .

[R] : Seeds of Pinus are polycotyledonous .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**14.** [A] : The mosses like liverworts , do not exhibit alternation of generation .

[R] : The adult gametophyte is conspicuous leafy green , photosynthetic plant in ferns .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**15.** [A] : Mosses do not seem to resist infections by most fungi and are often seriously damaged by insects .

[R] : They do not possess antibiotic material .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**16.** [A] : Monotrapa is a parasitic plant .

[R] : It does not show proper mycorrhizal association .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**17.** [A] : Some of the Sea kelps are used as fertilizers .

[R] : They are important source of minerals .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**

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**18.** [A]: Angiosperms and gymnosperms both are flowering plants .

[R] : They both form covered seeds .

A. If both A and R are true and R is the correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. If A is true and R is false

D. If both A and R are false

**Answer:**