BIOLOGY

BOOKS - MTG BIOLOGY (HINGLISH)

PLANT KINGDOM

Plant Kingdom

1. Artificial system of classification were based upon

A. vegetative characters

B. androecium structure

C. habit and habitat

D. all of these.

Answer: D

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2. Plant classification as proposed by Carolus Linnaeus was artifical because it was based on

A. only a few morphological characters

B. all the possible characters

C. anatomical characters which are adaptive in nature

D. physiological and morphological characters.

Answer: A

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3. Artifical systems have equal weightage to the vegetative and sexual characteristics, this is not acceptable because often___characters are more easily affected by environment.

A. vegetative characters

B. sexual

C. anatomical characters which are adaptive in nature

D. physiological

Answer: A

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4. Each character is given equal importance and at the same time hundreds of charactrers can be considered in

A. cytotaxonomy

B. morphotaxonomy

C. chemotaxonomy

D. numerical taxonomy.

Answer: D

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5. _____system of classification was based on nature affinities among the organisms.

A. Artificial

B. Natural

C. Phylogenetic

D. sexual

Answer: B

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6. Natural system of classification takes into consideration

A. morphological and anatomical characters

B. cytological and embryological characters

C. physiological and reproductive characters

D. all of these.

Answer: D

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7. A system of classification in which a large number of traits are considered is

A. artifical system

B. phylogenetic system

C. synthetic system

D. natural system.

Answer: D

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8. Natural system of classification differs from artifical system in

A. amploying only one floral trait

B. employing only one vegetative trait

C. bringing out similarities and dissimilarities

D. developing evolutionary trends.

Answer: C

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9. _____classification system was based on evolutionary relationships between various organisms.

A. Natural

B. Artificial

C. Phylogenetic

D. both a and b

Answer: C

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10. Match column I wth II and select the correct option from the codes given below.

Column I	Column II
A Artifical system of classification	(i) Bentham and Hooker
$B.$ Natural system of classification	$(ii).$ Linnaeus
$C.$ Phylogenetic system	$(iii).$ Engler and Prantl

A. A-(ii),B-(i),C-(iii)

B. A-(i),B-(ii),C-(iii)

C. A-(iii),B-(ii),C-(i)

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

Answer: A

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11. Select the incorrect pair

(a) Numerical taxonomy-all observable characteristics

(b). Cytotaxonomy-Cytological information

(c). Chemotaxonomy-Chromosome number and structure

(d). Cladistic taxonomy-Origin from a common ancestor

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12. system of classification that employs numerical data to evaluate similarities and differences is known as

A. cytotaxonomy

B. biosystematics

C. phenetics

D. chemotaxonomy

Answer: C

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13. Which out of the following are included under tracheophyta, i.e., vascular plants?

A. Pteridophytes

B. Gymnosperms

C. Angiosperms

D. all of these.

Answer: D

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14. Match column I with column II and select the correct option from the codes given below

Column I	Column II
$A.$ Non-vascular cryptogams	(i). Gymnosperms,angiosperms
$B.$ Vascular cryptogams	(ii). Pteridophytes
$C.$ Phanerogams	(iii). Algae,Bryophytes

A. A-(iii),B-(ii),C-(i)

B. A-(ii),B-(i),C-(iii)

C. A-(i),B-(ii),C-(iii)

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

Answer: A

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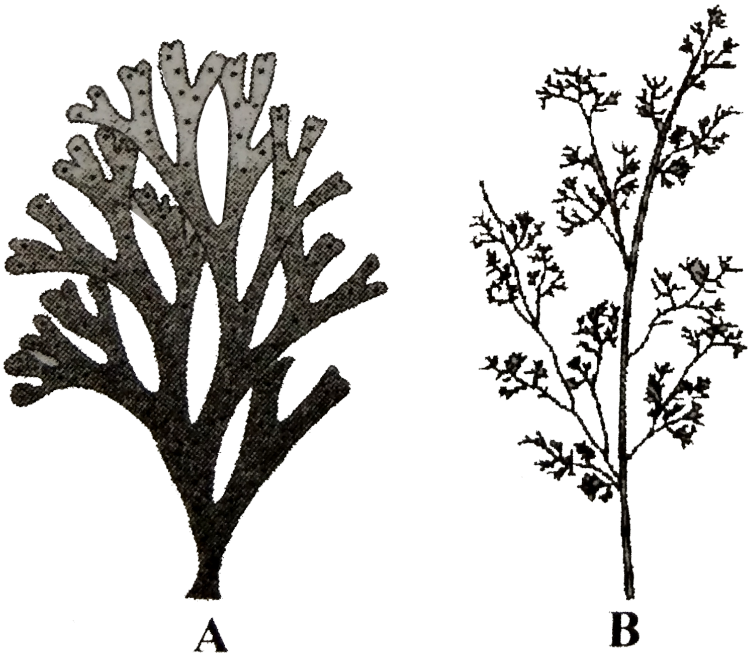

15.

Identify the given figures of algae and select the correct option.

A. A Fucus B Polysiphonia

B. A Dictyota B Polysiphonia

C. A Dictyota B Porphyra

D. A Porphyra B Polysiphonia

Answer: B

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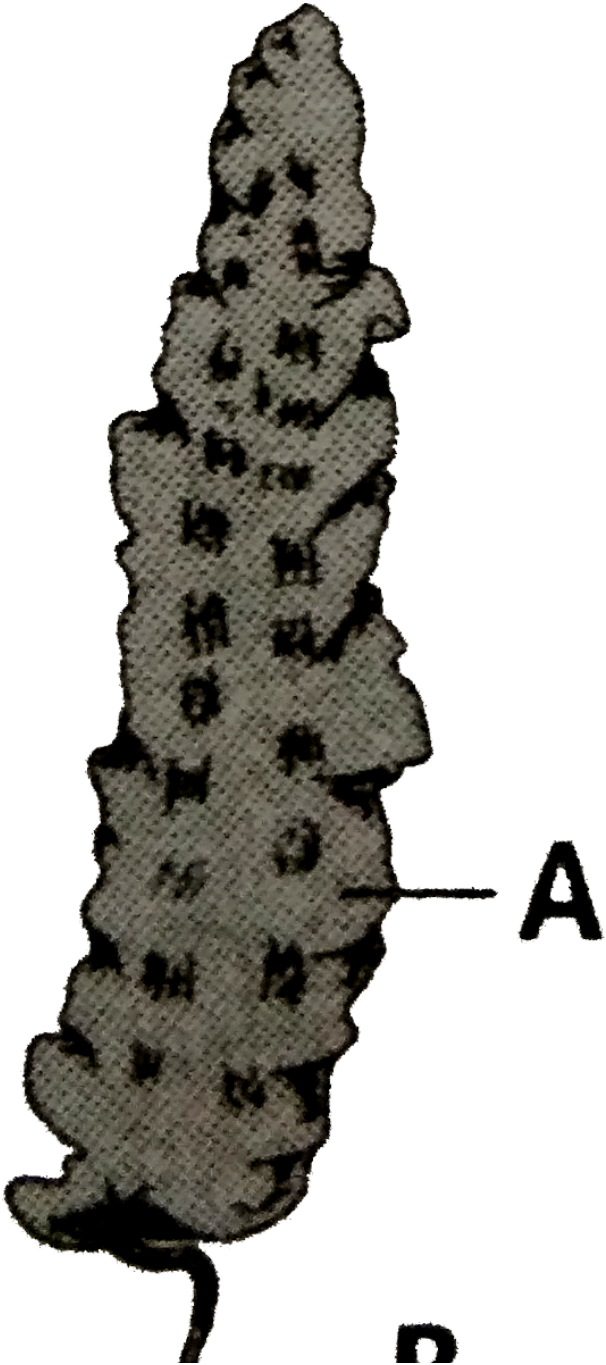

16.

Refer to the given fiture and select the correct

A. $\begin{matrix} A & B & C \\ \text{stipe} & \text{Holdfast} & \text{Frond} \end{matrix}$

B. $\begin{matrix} A & B & C \\ \text{Frond} & \text{Stipe} & \text{Holdfast} \end{matrix}$

C. $\begin{matrix} A & B & C \\ \text{Holdfast} & \text{Frond} & \text{Stipe} \end{matrix}$

D. $(A, B, C), (\text{stipe}, Frond, Holdf*)$

Answer: B

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17. Match column I with column II and select the correct option from the codes give below.

Column I	Column II
A. Spirogyra	(i). Unicellular
B. Chlamydomonas	(ii). Filamentous
C. Volvox	(iii). Colonial form
D. Some giant marine forms	(iv) Kelps

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

B. A-ii,B-iii,C-iv,D-i

C. A-iii,B-ii,C-iv,D-i

D. A-iii,B-ii,C-i,D-iv

Answer: A

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18. Read the given statements about algae and select the correct option:

(i). Plant body is thalloid

(ii). They are largely aquatic.

(iii). Reproduction occurs by vegetative, asexual and sexual methods.

(iv). Chlamydomonas, Volvox and Ulothrix are the multicellular algae.

A. Statement i and ii are true

B. Statement ii and iii are true.

C. statements (i),(ii) and (iii) are true.

D. All statements are true.

Answer: C

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19. Fusion between morphologically alike gametes is referred to as

A. isogamy

B. anisogamy

C. oogamy

D. syngamy.

Answer: A

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20. Fusion of two gametes which are dissimilar in size is termed as

A. oogamy

B. isogamy

C. anisogamy

D. both a and c

Answer: D

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21. Which type of sexual reproduction is found in volvox?

A. isogamous

B. anisogamous

C. oogamous

D. all of these.

Answer: C

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22. At least a half of the total CO_2 fixation on earth is carried out thorugh photosysnthesis by

A. angiosperms

B. gymnosperms

C. algae

D. bryophytes.

Answer: C

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23. Match column I with column II and select the correct option from the codes given below

Column I	Column II
A. Food	(i). Brown algae
B. Agar	(ii). Porphyra, Laminaria
C. Algin	(iii). Gelidium, Gracilaria
D. Carrageenin	(iv). Red algae

A. A-ii, B-iii, C-i, D-iv

B. A-ii, B-iii, C-iv, D-i

C. A-iii, B-ii, C-iv, D-i

D. A-iii, B-ii, C-i, D-iv

Answer: A

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24. Agar-agar is commercially obtained form

A. green algae

B. blue-green algae

C. brown algae

D. red algae.

Answer: D

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25. _____and _____are unicellular algae, rich in proteins, that are used as food supplements even by space travellers.

A. Chlorella,spirulina

B. Porphyra,Spirogyra

C. Laminaria,Spirogyra

D. None of the above

Answer: A

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26. Seaweeds are a source of

A. chlorine

B. fluorine

C. bromine

D. iodine.

Answer: D

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27. Major photosynthetic pigments in green algae are

A. Chl a and b

B. Chl a,c and fucoxanthin

C. Chl a,d and phycoerythrin

D. Chl a and c.

Answer: A

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28. Cup-shaped chloroplast in present in

A. Spirogyra

B. Chlamydomonas

C. Ulothrix

D. Chara.

Answer: B

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29. In most green algae, pyrenoids, the storage bodies, are located in____

A. chloroplasts

B. mitochondria

C. cytoplasm

D. nucleus

Answer: A

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30. Green algae usually have a rigid cell wall made of an inner layer of ___and an outer layer of____.

A. cellulose,cellulose

B. pectose,pectose

C. pectose,cellulose

D. cellulose,pectose

Answer: D

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31. A member of class chlorophyceae is

A. Chlamydomonas

B. volvox

C. ulothrix

D. all of these.

Answer: D

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32. Read the given statements and select the correct option

Statement-1: Volvox forms spherical colony.

Statement-2: Volvox colony is made up of non-motile cells.

A. Both statements 1 and 2 are correct

B. Statement 1 is correct but statement 2 is incorrect

C. Statement 1 is incorrect but statement 2 is correct.

D. Both statement 1 and 2 are correct.

Answer: B

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33. In Ulothrix, sexual reproduction is by

A. isogamy

B. anisogamy

C. oogamy

D. conjugation.

Answer: A

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34. Each cell of volvox colony has a structure similar to

A. ulothrix

B. Spirogyra

C. Chlamydomonas

D. Nostoc.

Answer: C

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35. The member of phaeophyceae or brown algae are found primarily in/on

A. Freshwater

B. marine

C. habitat

D. terrestrial habitat

Answer: B

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36. Which of the following pigments are found in brown algae?

A. Chl a, Chl c

B. Chl a, Chl d

C. Chl a, Chl c and fucoxanthin

D. Chl a, phycoerythrin

Answer: C

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37. The "seaweeds" that for the under water forest are

A. kelps

B. Laminaria

C. Macrocystic

D. all of these.

Answer: D

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38. Laminarin and mannitol, the reserve food of brown algae, are

A. lipids

B. complex carbohydrates

C. proteins

D. lipoproteins.

Answer: B

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39. Which of the following statements about Phaeophyceae is incorrect?

A. Vegetative reproduction occurs by fragmentation.

B. Asexual reproduction is by biflagellate pear-shaped zoospores.

C. In sexual reproduction, gametes are pyriform and bear 2 laterally attached flagella.

D. None of these.

Answer: D

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40. What is the characteristic branching pattern of dictyota thallus?

A. Monopodial

B. Excurrent

C. Dichotomous

D. Deliquescent

Answer: C

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41. Photosynthetic pigments of Rhodophyceae (red algae) are

A. chl a and b

B. chl a and c, fucoxanthin

C. chl a and d

D. chl a, chl d and phycoerythrin.

Answer: D

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42. Phycoerythrin is present in

A. Euglena

B. Polysiphonia

C. Chlamydomonas

D. fucus.

Answer: B

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43. Phycoerythrin, chlorophyll a and chlorophyll d are characteristics of

A. Phaeophyceae

B. Xanthophyceae

C. Chlorophyceae

D. Rhodophyceae.

Answer: D

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44. Selection the incorrect statement regarding reproduction in rhodophyceae.

A. Asexual reproduction occurs by non-motile spores.

B. Sexual reproduction occurs by motile gamets.

C. Sexual reproduction is oogamous.

D. Complex post-fertilisation developmetal events occurs.

Answer: B

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45. Common example of red algae is

A. porphyra

B. Batrachospermum

C. ectocarpus

D. both a and b

Answer: D

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46. Which out of the following does not belong to brown algae

A. Gelidium, Batrachospermum

B. Ectocarpus, Dictyota

C. Laminaria, Fucus

D. Sargassum, Ectocarpus

Answer: A

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47. Batrachospermum is a

A. red algae of sea

B. brown algae

C. blue algae

D. red algae of freshwater

Answer: D

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48. Which of the following is a correct match of algal class with its characteristic reserve food?

A. Chlorophyceae-starch

B. Phaeophyceae-Mannitol,laminarin

C. Rhodophyceae-Floridean starch

D. all of these.

Answer: D

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49. Select the correct match of of algal class and its characteristic flagellation.

A. Chlorophyceae- 2-8 equal, apical

B. Phaeophyceae- 2, unequal, lateral

C. Rhodophyceae- Absent

D. all of these.

Answer: D

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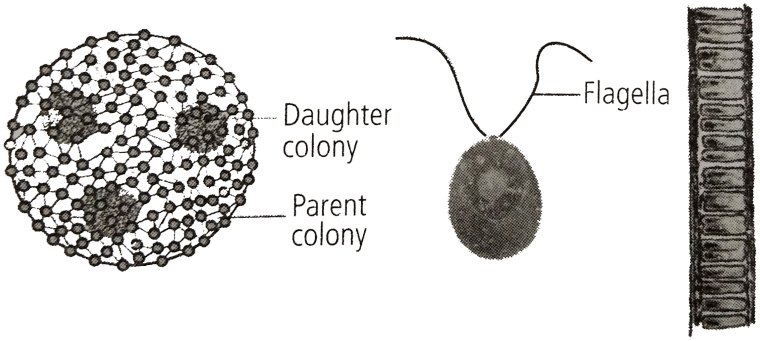

50.

The algae shown in the given figure belong to the class

A. Chlorophyceae

B. Phaeophyceae

C. Rhodophyceae

D. Cyanophyceae

Answer: A

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51. Bryophytes include

A. liverworts and ferns

B. mosses and ferns

C. mosses and liverworts

D. all of these.

Answer: C

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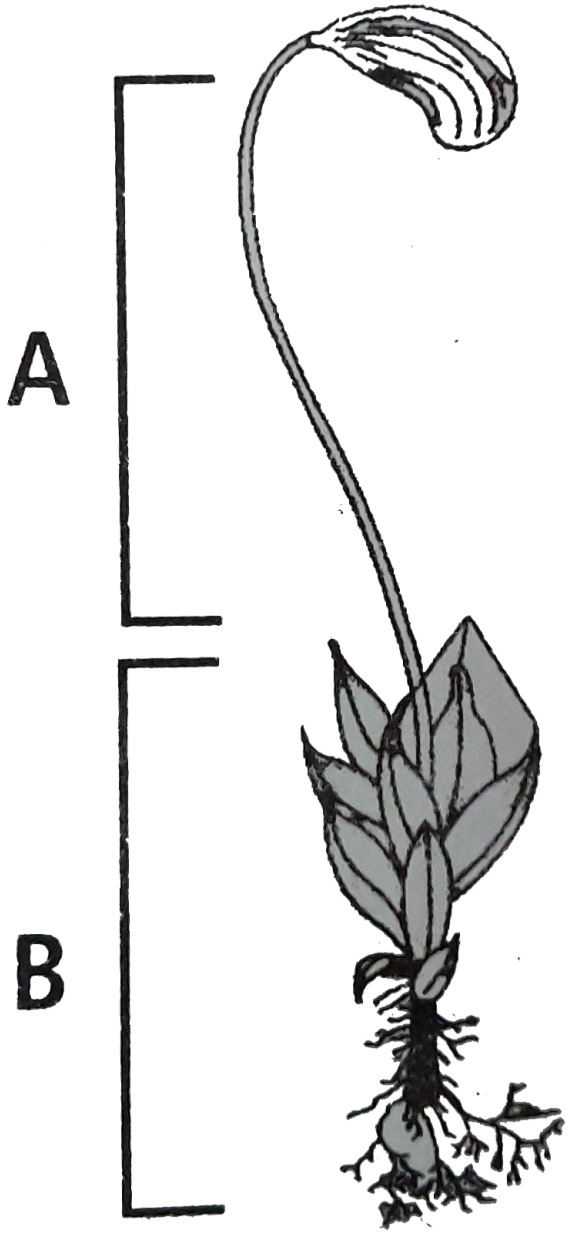
52. Select the option that correctly identifies



A. A Sporophyte B Gametophyte

B. A Gametophyte B Sporophyte

C. A Male shoot B Female shoot

D. A Female shoot B Male shoot

Answer: A

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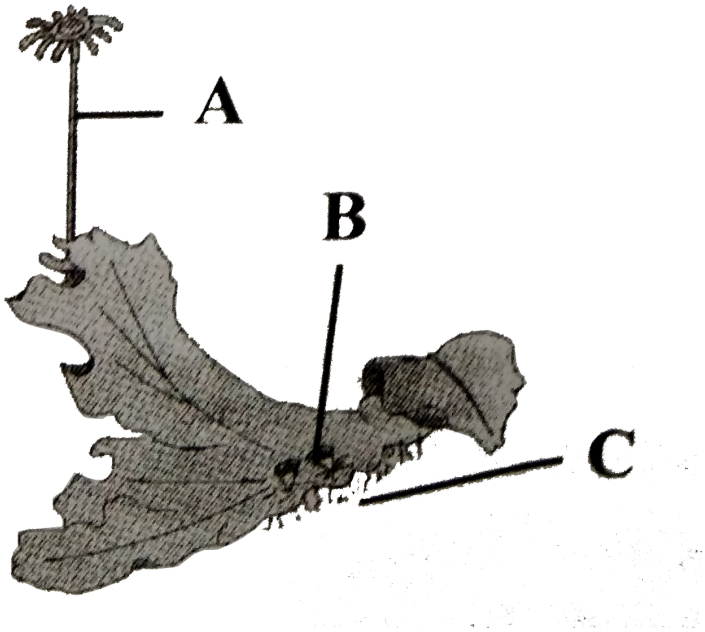

53.

Select the option that correctly identifies A,B and C in the given figure of

female thallus of Marchantia.

A. A-Antheridiophore, B-Gemma cup, C-Rhizoids

B. A-Antheridiophore, B-Rhizoids, C-Gemma cup

C. A-Archegoniophore,B-Gemma cup, C-Rhizoids

D. A-Archegoniophore, B-Rhizoids,C-Gemma cup

Answer: C

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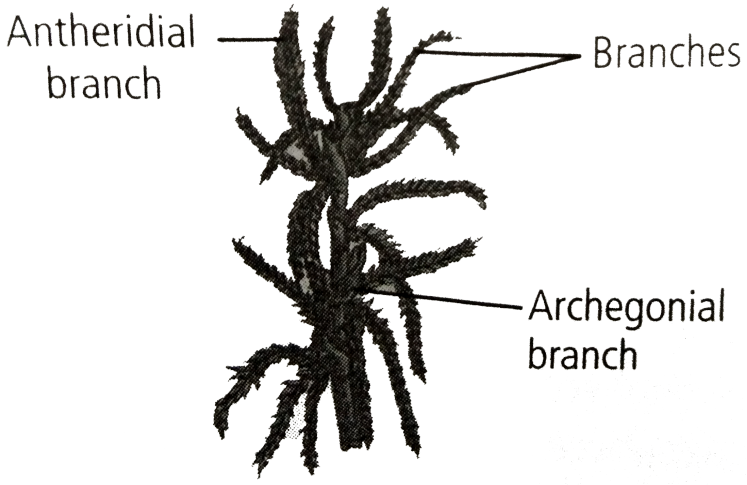

54.

Which of the following options correctly identifies the plant shown in

figure and the group it belongs to?

A. Marchantia-Liverwort

B. Sphagnum-Moss

C. Sphangum-liverwort

D. Funaria-Moss

Answer: B

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55. Read the given statements and select the correct option

Statement-1: Bryophytes are amphibians of plant kingdom.

Statement-2: They live in soil but depend on water for sexual reproduction.

A. Both statements 1 and 2 are correct

B. Statement 1 is correct but statement 2 is incorrect

C. Statement 1 is incorrect but statement 2 is correct.

D. Both statement 1 and 2 are incorrect.

Answer: A

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56. The bryophytes are usually found in

A. damp and shaded areas

B. marine habitat

C. sandy soils

D. xeric habitat

Answer: A

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57. Resemblances between algae and bryophytes include

A. Presence of root-like, stem-like and leaf-like structures

B. Thallus-like plant body, lack of vascular tissue, autotrophic nutrition

C. Thallus-like plant body, presence of vascular tissue, autotrophic nutrition.

D. Presence of roots, heterotrophic nutrition

Answer: B

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58. The prominent phase in the life cycle of bryophytes is

A. gametophyte

B. sporophyte

C. seta

D. sporogonium.

Answer: A

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59. The female sex organ in Riccia and funaria is

A. antheridium

B. paraphysis

C. archegonium

D. oogonium

Answer: C

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60. A sterile jacket around gemetangia is found among

A. bryophytes

B. lichens

C. algae

D. fungi

Answer: A

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61. The embryonic development in bryophytes takes place in the

A. protonema

B. sporangium

C. antheridium

D. archegonium

Answer: D

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62. Read the following statement regarding bryophytes and select the correct answer.

(i). Bryophytes lack true roots, stem and leaves.

(ii). The main plant body is haploid

(iii). Sex-organs are unicellular and non-jacketed

(iv). Fertilisation produces an embryo inside the water.

A. Statement i and ii are true

B. Statement ii and iii are true.

C. Statement iii and iv are correct

D. All statements are true.

Answer: A

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63. The sporophyte is attached to the gametophyte in

A. algae

B. fungi

C. bryophytes

D. pteridophytes.

Answer: C

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64. In bryophytes

A. sporophytes are dependent upon gametophytes

B. sporophyte and gametophyte generation are independent

C. sporophyte in itself completes the life cycle

D. gametophytes are dependent upon sporophytes.

Answer: A

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65. Peat, obtained from Sphagnum moss, is used as

A. fuel

B. manure

C. corrosive

D. both a and b.

Answer: D

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66. The moss which forms dense extensive mats on the soil prevents

A. uprooting of trees

B. soil erosion

C. falling of leaves

D. evaporation of water from the soil

Answer: B

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67. Asexual reproduction in liverworts takes place by

A. fragmentation of thalli and gemmae formation

B. gemmae formation and diploid spore formation

C. spores formation and isogamy

D. fragmentation and zoospore formation

Answer: A

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68. Gemmae are asexual reproductive bodies of

A. brown algae

B. mosses

C. liverworts

D. red algae

Answer: C

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69. Gemmae are the specialised structures produced in liverworts. These are

A. non-green,multicellular, asexual buds which develop in gemma cups

B. green, multicellular, asexual buds which develops in gemma cups

C. non-green, multicellular, diploid, sexual spores

D. green,unicellular, diploid, sexual spores.

Answer: B

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70. Gemmae are multicellular green structures for vegetative propagation. These are found inside gemma cups in

A. Riccia capsule

B. Marchantia thallus

C. Funaria protonema

D. Polytrichum thallus.

Answer: B

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71. Select the option that includes liverworts only.

A. Riccia, Marchantia

B. Riccia, Funaria

C. Polytrichum, Marchantia

D. both a and c

Answer: A

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72. In funaria, the haploid structures is

A. protonema

B. capsule

C. columella

D. seta.

Answer: A

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73. The sporophytic phase in funaria is well developed and composed of

A. capsule only

B. spore sac

C. foot and capsule

D. foot, seta and capsule.

Answer: D

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74. Which of the following is not a moss?

A. Polytrichum

B. Sphagnum

C. Funaria

D. Riccia

Answer: D

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75. Funaria requires water because

A. fertilisation occurs in water only

B. Funaria is a hydrophyte

C. plants need water for gametogenesis

D. gametangia cannot develop without water.

Answer: A

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76. Read the given statements and select the correct option

Statement-1: Each sperm of moss has two flagella.

Statement-2: Water is essential for fertilisation in mosses.

A. Both statements 1 and 2 are correct

B. Statement 1 is correct but statement 2 is incorrect

C. Statement 1 is incorrect but statement 2 is correct.

D. Both statement 1 and 2 are incorrect.

Answer: A

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77. A moss sperm moves by means of

A. pseudopodia

B. cilia

C. flagella

D. any of these.

Answer: C

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78. Which of the following statements is incorrect?

A. Mosses along with lichens are the first organisms to colonise rocks.

B. Sphagnum is used as packing material for transportation of living material

C. in liverworts, spores are produced after meiosis within the capsule.

D. Funaria possesses unicellular unbranched rhizoids.

Answer: D

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79. Read the given statements ad select the correct option.

Statement-1: Main plant body of bryophytes is sporophytic.

Statement-2: Main plant body of pteridophytes is gametophytic

A. Both statements 1 and 2 are correct

B. Statement 1 is correct but statement 2 is incorrect

C. Statement 1 is incorrect but statement 2 is correct.

D. Both statement 1 ad 2 are incorrect.

Answer: D

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80. In pteridophytes, main plant body is (i), which is (ii) into true roots, stem and leaves.

Fill the blanks in above statements and select the correct option

A.

Column I	Column II
sporophyte	differentiated

B.

Column I	Column II
sporophyte	not differentiated

C.

Column I	Column II
gametophyte	differentiated

D.

Column I	Column II
gametophyte	not differentiated

Answer: A

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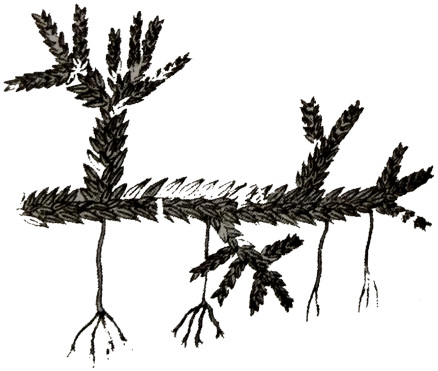

A

B

81.

Identify the plants shown in figure and select the correct option:

A. $\begin{matrix} A & B \\ \text{Equisetum} & \text{Fern} \end{matrix}$

B. $\begin{matrix} A & B \\ \text{Selaginella} & \text{Equisetum} \end{matrix}$

C. $\begin{matrix} A & B \\ \text{Selaginella} & \text{Salvinia} \end{matrix}$

D. $\begin{matrix} A & B \\ \text{Fern} & \text{Equisetum} \end{matrix}$

Answer: C

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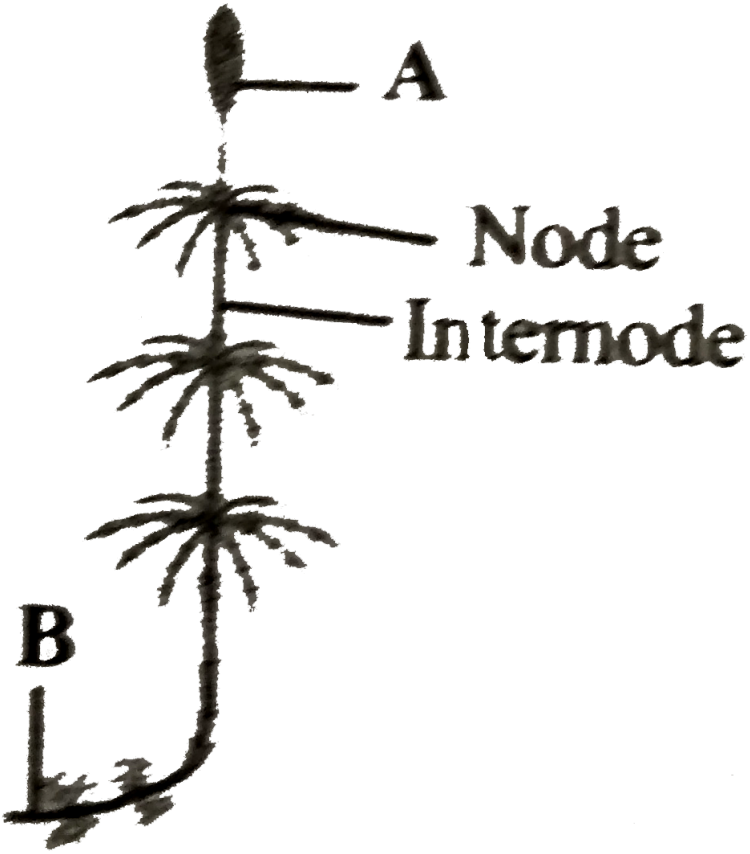

82.

Identify the parts labelled as A andB in the given figure of Equisetum and select the correct option

A. $\begin{matrix} A & B \\ \text{Stroblus} & \text{Rhizome} \end{matrix}$

B. $\begin{matrix} A & B \\ \text{Sporophylls} & \text{Tuber} \end{matrix}$

C. $\begin{matrix} A & B \\ \text{Sporangia} & \text{Rhizome} \end{matrix}$

D.

A	B
Sporophyte	Tuber

Answer: A

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83. In pteridophytes, a spore germinates to produce

A. sporophytes

B. sprogonium

C. prothallus

D. microsporophyll

Answer: C

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84. The spread of living pteridophytes is limited and is restricted to narrow geographical region because

A. gametophytic growth needs cool, damp and shady places

B. there is requirement of water for fertilisation

C. there is absence of stomata in leaf and absence of vascular tissue

D. both a and b

Answer: D

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85. In pteridophytes, prothallus produces

A. sporangia

B. antheridia and archegonia

C. vascular tissues

D. root, stem and leaf.

Answer: B

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86. The heterosporous pteridophytes are

A. Lycopodium and Pteris

B. Selaginella and Psilotum

C. Selaginella and Salvinia

D. Dryopteris and Adiantum.

Answer: C

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87. Heterosporous pteridophytes show certain characteristics, which are precursor to the seed habit in gymnosperms. One of such characteristics is

A. presence of vascular tissues

B. external water required for fertilisation

C. presence of embryo stage

D. development of embryo inside the female gametophyte.

Answer: D

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88. Match column I with column II and select the correct option from the codes given below

Column I	Column II
$A.$ Psilopsida	$(i).$ Psilotum
$B.$ Lycopsida	$(ii).$ Equisetum
$C.$ Sphenopsida	$(iii).$ Selaginella
$D.$ Pteropsida	$(iv).$ Dryopteris

A. A-i, B-ii, C-iii, D-iv

B. A-i, B-iv, C-iii, D-ii

C. A-i, B-iii, C-ii, D-iv

D. A-i, B-iii, C-iv, D-ii

Answer: C

89.

The given figure shows a/an

A. Adiantum plant

B. Dryopteris plant

C. Selaginella leaf

D. Psilotum leaf.

Answer: B

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90. Which of the following is an aquatic fern?

A. Adiantum

B. Dryopteris

C. Salvinia

D. Equisetum

Answer: C

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91. Gymnosperms do not bear fruits because they do not have

A. seeds

B. ovary

C. ovule

D. pollination.

Answer: B

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92. Gymnosperms are referred to as "naked seeded plants" because

A. they lack ovule

B. they lack ovaries

C. they have no seed coat

D. the embryo is unprotected.

Answer: B

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93. Plants which possess seeds but not fruits are

A. bryophytes

B. pteridophytes

C. gymnosperms

D. algae

Answer: C

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94. Gymnosperms do not include

A. herbs

B. shrubs

C. trees

D. both a and b

Answer: A

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95. Mycorrhizal roots of ____are associated with some fungal symbionts.

A. Pinus

B. Cedrus

C. Cycas

D. Ginkgo

Answer: A

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96. Coralloids roots of ___have symbiotic association with N_2- fixing cyanobacteria.

A. Pinus

B. Cedrus

C. Cycas

D. Ginkgo

Answer: C

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97. Which of the following gymnosperms has branched stems?

A. Pinus

B. Cycas

C. Cedrus

D. Both a and c

Answer: D

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98. The leaves of gymnosperms are well-adapted to withstand extremes of temperature, humidity and wind, because of which of the following features?

A. Needle like leaves

B. Thick cuticle

C. Sunken stomata

D. all of these.

Answer: D

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99. Identify the gymnosperms shown in figure and select the correct option

A. $\begin{matrix} A & B & C \\ \text{Cycas} & \text{Cedrus} & \text{Ginkgo} \end{matrix}$

B. $\begin{matrix} A & B & C \\ \text{Pinus} & \text{Cycas} & \text{Cedrus} \end{matrix}$

C. $\begin{matrix} A & B & C \\ \text{Ginkgo} & \text{Pinus} & \text{Cycas} \end{matrix}$

D. $\begin{matrix} A & B & C \\ \text{Cycas} & \text{Ginkgo} & \text{Pinus} \end{matrix}$

Answer: A

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100. Seed plants are all

A. heterosporous

B. dioecious

C. monoecious

D. homosporous.

Answer: A

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101. Select the correct pattern of arrangement of reproductive structures for gymnosperms.

A. spores $\rightarrow$ Sporophyll $\rightarrow$ sporangia $\rightarrow$ strobili

B. spores $\rightarrow$ sporangia $\rightarrow$ sporophylls $\rightarrow$ strobili

C. sporangia $\rightarrow$ sporophylls $\rightarrow$ spores $\rightarrow$ strobili

D. spores $\rightarrow$ sporangia $\rightarrow$ strobili $\rightarrow$ sporophylls

Answer: B

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102. In Pinus, male strobilus bears a large number of

A. anthers

B. stamens

C. microsporophylls

D. megasporophylls.

Answer: C

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103. Heterospory is found in some members of ____and all members of ____

A. bryophyta, pteridophyta

B. Pteridophyta, bryophyta

C. Bryophyta, Gymnospermae

D. Pteridophyta, Spermatophyta

Answer: D

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104. Which of the following statements is incorrect about cycas?

A. It has unchanged stem.

B. it possesses pinnately compound leaves.

C. it is a dioecieous plant

D. it is a non-archegoniate plant.

Answer: D

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105. Megasporophyll of gymnosperms is homologous to _____ of angiosperms.

A. stamen

B. carpel

C. sepal

D. petal

Answer: B

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106. Which of the following structures are haploid in gymnosperms?

A. pollen grain, megaspore, embryo

B. Pollen grain, megaspore, endosperm

C. Megaspore, leaf, root

D. Leaf, root, integument

Answer: B

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107. _____do not have free living gametophyte.

A. Bryophytes

B. Pteridophyte.

C. Gymnosperms

D. Both (b) and (c)

Answer: C

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108. Study the given statements about gymnosperms and select the correct option.

(i). Mode of fertilization is siphonogamy

(ii). Male and female cones are borne on same tree in Pinus.

(iii). Endosperm represents female gametophyte.

A. Statement i and ii are true

B. Statement ii and iii are true.

C. statement i and iii are correct

D. statement (i), (ii) and (iii) are correct

Answer: D

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109. Match column I wth column II and select the correct option from the codes given below

Column I	Column II
$A.$ Sagopalm	$(i).$ Ephedra
$B.$ Chilgoza fruit	$(ii).$ Pinus gerardiana
$C.$ Ephedrine drug	$(iii).$ cycas revolute
$D.$ Cedar wood oil	$(iv).$ Juniperus Virginiana

A. A-iv,B-ii,C-i,D-iii

B. A-iii,B-ii,C-i,D-iv

C. A-iii,B-iv,C-i,D-ii

D. A-ii,B-iii,C-i,D-iv

Answer: B

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110. Canada balsam, a mounting agent used to make permanent slides, is obtained from the species of

A. Abies

B. Cedrus

C. Pinus

D. Juniperus

Answer: A

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111. Select the mismatched pair.

A. Cycas-Living fossil

B. Thuja-Agar production

C. Pinus-Resin,Turpentine production

D. Araucaria-Ornamental plant

Answer: B

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112. Gymnosperm called as a living fossil is

A. Cycas

B. Ginkgo

C. Juniperus

D. both a and b

Answer: D

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113. Which of the following characters represents the affinities of Gnetum with angiosperms and differences with Cycas and Pinus?

A. Presence of xylem vessel and absence of archegonia

B. Perianth and two integuments

C. Embryo development and apical meristem

D. Absence of resin ducts and leaf venation

Answer: A

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114. The sporophyte is the dominant phase in

A. pteridophytes

B. gymnosperms

C. Angiosperms

D. all of these.

Answer: D

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115. Select the mismatched pair.

A. Amphibians plants kingdon-Bryophytes

B. First terrestrial plants to possess vascular tissues-Gymnosperms

C. Water required for fertilisation-Pteridophytes

D. Seeds enclosed in fruits- Angiosperms

Answer: B

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116. Select the mismatched pair.

A. Smallest angiosperm-Rafflesia

B. Tallest angiosperm-Eucalyptus regnans

C. Marine angiosperms-Zostera,Thalassia

D. Angiosperms with smallest seed-orchid

Answer: A

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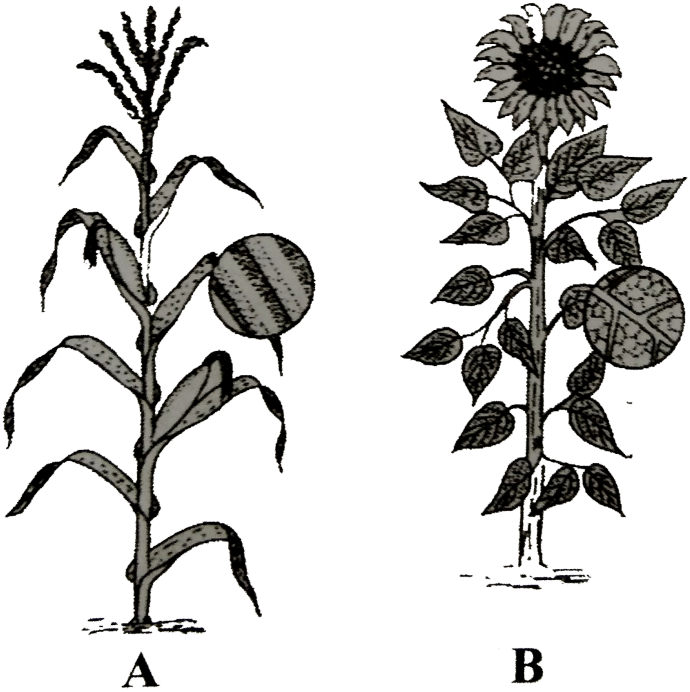

117.

Angiosperms A and B shown in the figure belong the class____and ____respectively.

A. `{:(A,B),("Dicotyledonae","Monocotyledonae"):}

B. `{:(A,B),("Monocotyledonae","Dicotyledonae"):}

C. `{:(A,B),("Monocotyledonae","Monocotyledonae"):}

D. `{:(A,B),("Dicotyledonae","Dicotyledonae"):}

Answer: B

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118. In angiosperms, functional megaspore develops into

A. embryo sac

B. ovule

C. endosperm

D. pollen sac.

Answer: A

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119. In double fertilisation, one male gamete fuses with the (i) to form zygote and the other male gamete fuses with (ii) to form primary endosperm nucleus.

A. synergids (n), antipodals (n)

B. egg (n), antipodals (n)

C. egg (n), secondary nucleus (2n)

D. egg (n), synergids (n)

Answer: C

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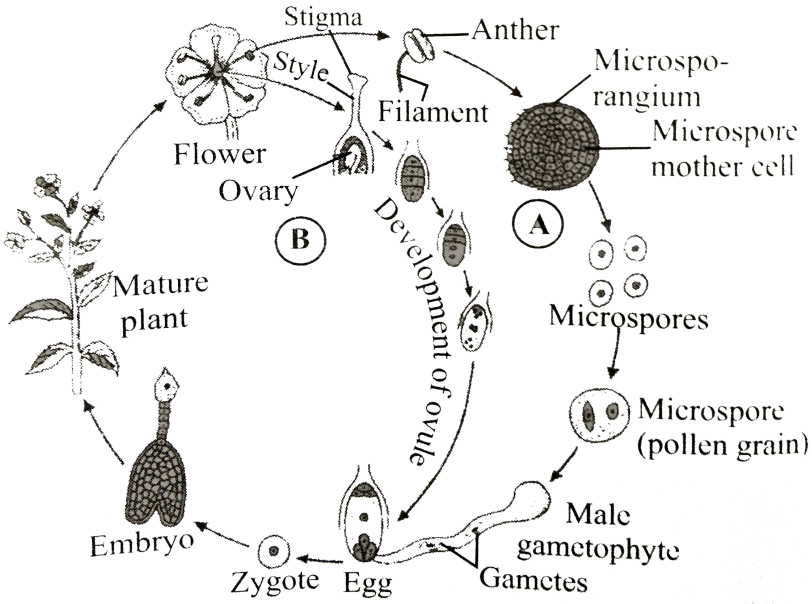

120.

The given figure shows to phases, A and B of a typical angiospermic life

cycle. Select the correct option regarding it.

A. A Gametophytic generation (n) B Sporophytic generation (2n)

B. A Sporophytic generation (2n) B Gametophytic generation (n)

C. A Sporophytic generation (2n) B Sporophytic generation (2n)

D. A Gametophytic generation (n) B Gametophytic generation (n)

Answer: A

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121. Match column I with Column II and select the correct option from the codes given below

Column I	Column II
A. Pteris	(i). Bryophyte
B. Cedrus	(ii). Pteridophyte
C. Sonchus	(iii). Gymnosperms
D. Marchantia	(iv). Angiosperm

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

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

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

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

Answer: A

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122. Which of the statements regarding haplontic life cycle is incorrect?

A. Sporophytic generation is represented only by the one-celled zygote.

B. There is no free-living sporophyte.

C. Mitosis in the zygote results in the formation of haploid spores.

D. The haploid spores divide mitotically and form the gametophyte.

Answer: C

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123. Haplontic life cycle generally occurs in

A. most algae

B. bryophytes

C. pteridophytes

D. gymnosperms.

Answer: A

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124. Which kind of life-cycle pattern is exhibited by seeds bearing plants?

A. Haplontic

B. Diplontic

C. Haplo-diplontic

D. all of these.

Answer: B

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125. Read the given statements and select the incorrect ones.

(i). Sporophyte in mosses is more elaborate than that in liverworts.

(ii). Salvinia is homosporous

(iii). Life-cycle in all spermatophytes is diplontic.

(iv). In cycas, male cones and megasporophylls are borne on the same trees.

A. (i) and (ii)

B. (i) and (iii)

C. (ii) and (iv)

D. (iii) and (iv)

Answer: C

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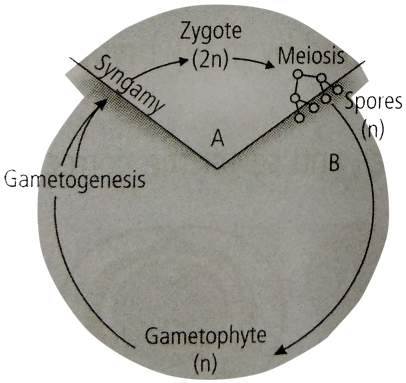
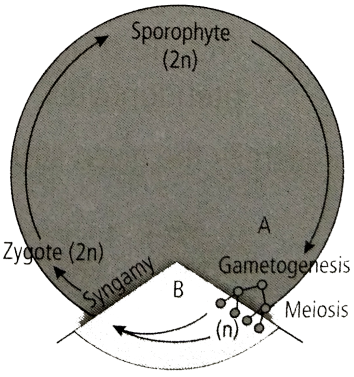


A



B

126.

Refer to the given showing life cycle patterns and identify them.

A. A Diplontic B Haplontic

B. A Haplontic B Diplontic

C. A Haplo-diplontic B Haplontic

D. A Haplo-Diplontic B Diplontic

Answer: B

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127. Haplo-diplontic life cycle is found in

A. bryophytes

B. pteridophytes

C. fungi

D. both a and b

Answer: D

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128. In_____, a dominant and independent haploid gametophyte alternates with a short lived, dependent sporophyte.

A. algae

B. bryophytes

C. pteridophytes

D. gymnosperms.

Answer: B

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129. Read the given statements and select the correct option,

Statement-1: Bryophytes show alternation of generation

Statement-2: A haploid gametophytic generation and a diploid sporophytic generation alternate in the life cycle.

A. Both statements 1 and 2 are correct

B. Statement 1 is correct but statement 2 is incorrect

C. Statement 1 is incorrect but statement 2 is correct.

D. Both statement 1 and 2 are incorrect.

Answer: A

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130. In____, a dominant and independent diploid sporophyte alternates with a short-lived, independent haploid gametophyte.

A. algae

B. bryophytes

C. pteridophytes

D. gymnosperms.

Answer: C

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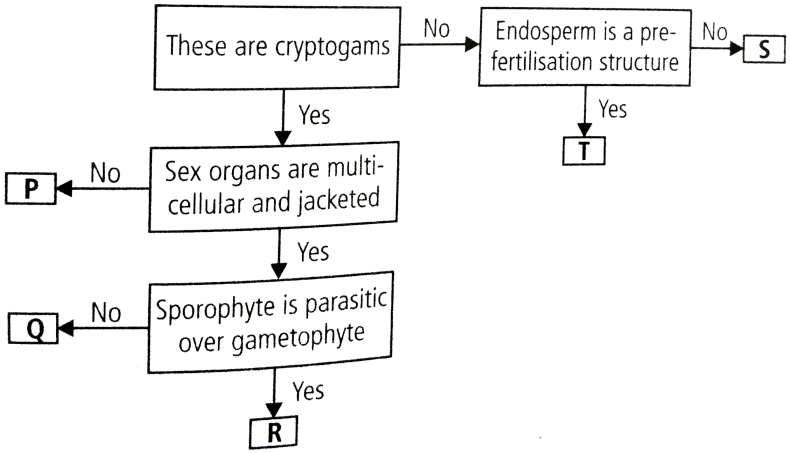

131.

Refer to the given flow chart regarding different groups of kingdom plantae.

Which of the following is true regarding P,Q,R,S and T?

A. Examples of group 'P' include Riccia, Marchantia, Sphagnum, etc.

B. Members of group 'R' can be both homosprous as well as heterosporous.

C. Group 'Q' includes seedless vascular plants having sprophytic plant body.

D. Group 'S' is more ancient that group 'T' and formed a dominant vegetation on earth some 200 million years back in mesozoic era.

Answer: C

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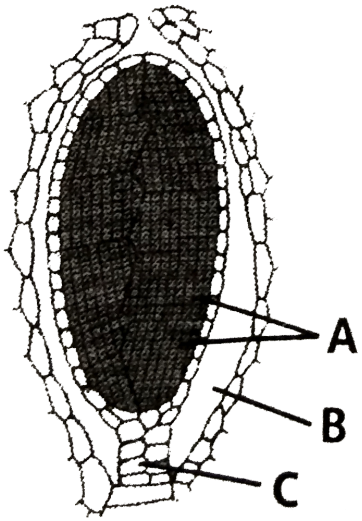

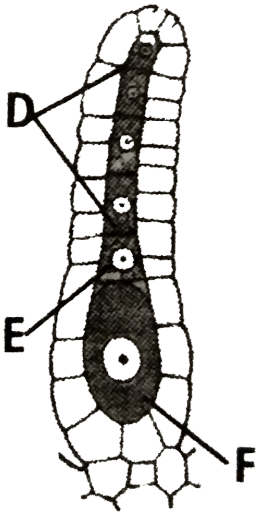

132.

Refer to the following figures regarding division bryophyta.

(i). 'A' are the androcyte mother cells of the antheridium,

which give rise to a large number of biflagellate male gametes.

(ii). 'B' is the autheridial chamber and 'C' is multicellular stalk of antheridium.

(iii). 'D' and 'E' respectively represents venter canal cells and neck canal cell of the femal sex organ.

(iv). 'F' is the egg cell of the archegonium, which usually possesses severatl female gameters.

Which of the following combinations of above statements is incorrect?

A. (i) and (ii)

B. (iii) and (iv)

C. (ii) and (iii)

D. (i) and (iv)

Answer: B

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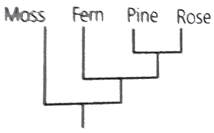
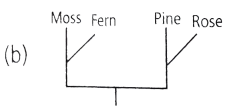
133. A phylogenetic tree or evolutionary tree is a branching diagram shown the inferred evolutionary relationships among various biological species. Which of the following phylogenies is correctly represented?

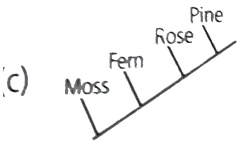
A.



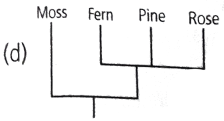
B.



C.



D.



Answer: A

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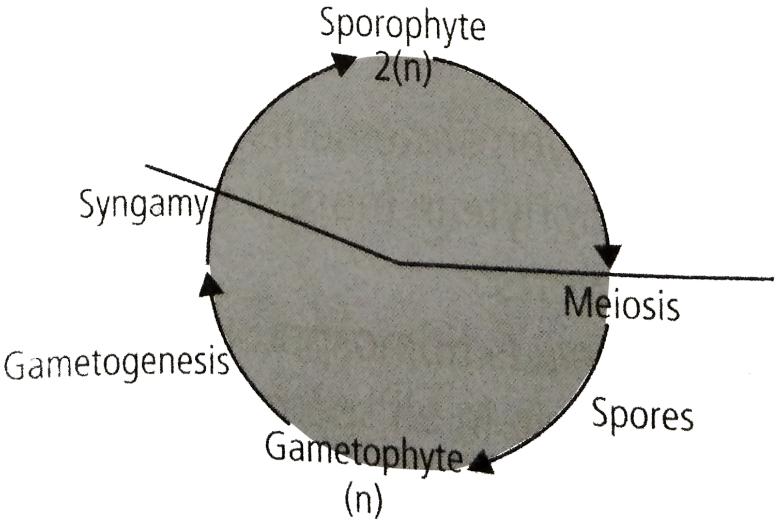

134.

Select the incorrect statements with respect to given type of life cycle.

A. Maiosis occurs at the time of spore formation in sporophytic plant.

B. Gametophytic plant is produced by germination of spores.

C. This life cycle is exhibited by most algae and some seeds bearing plants.

D. This life cycle is exhibited by many bryophytes and pteridophytes.

Answer: C

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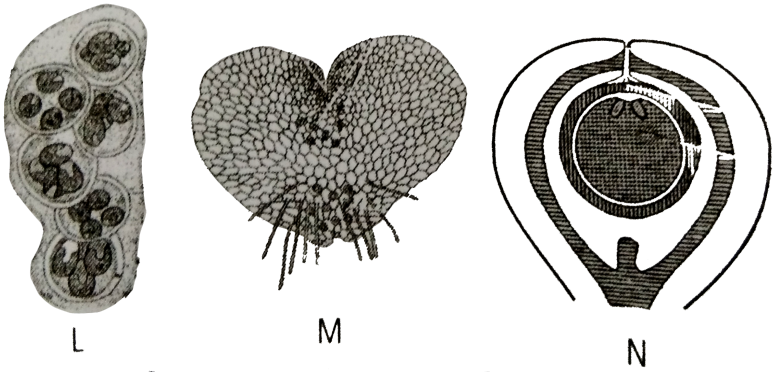
135. Identify the given structures and select the correction options,



A.

L	M	N
Aplanospore of Ulothrix	Prothallus (2n) of pteridophyte	Ovule of

B.

L	M	N
Palmella stage of Ulothrix	Prothallus (n) of pteridophyte	Ovule

C.

L	M	N
Akinetes of Chlamydomonas	Sporophyte (2n) of bryophyte	Endos

D.

L	M	
Palmella stage ofchlamydomonas	Prothallus (n)_ of pteridopyte	

Answer: D

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136. Cyanobacteria are classified under

A. protista

B. plantae

C. monera

D. algae.

Answer: C

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137. Fusion of two motile gametes which are dissimilar in size is termed as

A. oogamy

B. isogamy

C. anisogamy

D. zoogamy

Answer: C

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138. Holdfast, stipe and frond constitute the plant body in case of

A. Rhodophyceae

B. Chlorophyceae

C. Phaeophyceae

D. all of these.

Answer: C

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139. A plant shows thallus level of organisation.It shows rhizoids and is haploid. It needs water to complete its life cycle because the male gametes are motile . It may belong to

A. pteridopytes

B. gymnosperms

C. monocots

D. bryophytes.

Answer: D

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140. A prothallus is

A. a structure in pteridophytes formed before the thallus develops

B. a sporophytic free living structure formed in pteridophytes

C. a gametophyte free living structure formed in pteridophytes

D. a primitive structure formed after fertilisation in pteridophytes.

Answer: C

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141. Plants of this group are diploid and well adapted to extreme conditions. They grow bearing sporophylls in compact structures called cones. The group in reference is

A. monocots

B. dicots

C. pteridophytes

D. gymnosperms.

Answer: D

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142. The embryo sac of an angiosperms is made up of

A. 8 cells

B. 7 cells and 8 nuclei

C. 8 nuclei

D. 7 cells and 7 nuclei

Answer: B

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143. if the diploid number of flowering plant is 36, what would be the chromosome number in its endosperms?

A. 36

B. 18

C. 54

D. 72

Answer: C

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144. Protonema is

A. haploid and is found in mosses

B. diploid and is found in liverworts

C. diploid and is found in pteridophytes

D. haploid and is found in pteridophytes.

Answer: A

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145. The giant redwood tree (Sequoia sempervirens) is a/an

A. angiosperm

B. free fern

C. pteridophyte

D. gymnosperms.

Answer: D

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146. Assertion: Algae shown only anisogamous type of reproduction.

Reason: In algae, gametes can never be non flagellated.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: D

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147. Assertion: Chlorella and spirulina are used as a food supplement by space travellers

Reason: Chlorella and spirulina are unicellular algae.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: B

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148. Assertion: In chlorophyceae, plant body is usually grass green.

Reason: Members of chlorophyceae, possess chlorophyll a, c, carotenoids and xanthophyll.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: C

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149. Assertion: Brown algae vary from olive green to brown in colour.

Reason: Fucoxanthin is responsible for color variation in brown algae

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: A

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150. Assertion: Red colour of rhodophyta is due to abundant formation of r-phycoerythrin.

Reason: r-Phycoerythrin is able to absorb blue green wavelength of light and reflect red colour.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: A

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151. Assertion: Bryophytes are called asterrestrial amphibians.

Reason: Bryophytes require an external layer of water on the soil surface for their existence.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: A

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152. Assertion: Mosses are of great ecological importance.

Reason: Mosses prevent soil erosion by forming dense mat on the soil

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: B

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153. Assertion: Spores in mosses are contained within the capsule.

Reason: Spores are formed by mitotic division in mosses.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: C

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154. Assertion: In pteridophytes, zygote produces a multicellular sporophyte.

Reason: Sporophyte is the dominant phase In life cycle of pteridophytes.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: B

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155. Assertion: Selaginella and Salvinia are homosporus.

Reason: Ovules of gymnosperms are enclosed within the ovaries.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: D

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156. Assertion: Gymnosperms do not produce fruit

Reason: In gymnosperms, cuticle of leaves is thin.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: C

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157. Assertion: stomate are found on the surface of leaves in gymnosperms

Reason: In gymnosperms.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: D

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158. Assertion: In gymnosperms, the male and female gametophytes do not have independent existence.

Reason: They remain within the sporangia retained on the sporophyte.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: A

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159. Assertion: In angiosperms, each cell of the embryo sac is haploid.

Reason: In angiosperms, embryo sac formation is preceded by meiosis.

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

B. if both assertion and reason are true but reason is not the correct explanation of assertion

C. if assertion is true but reason is false.

D. if both assertion and reason are false.

Answer: A

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160. Assertion: In diplontic life cycle, gametophyte is dominant.

Reason: In diplontic life cycle, there is not free living sporophyte.

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 but R is false.

D. If both A and R are false.

Answer: D

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