



BIOLOGY

BOOKS - MODERN PUBLICATION

PLANT KINGDOM

Exercise

1. Define gametic meiosis



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2. Write the importance of phycocolloids in cell walls of brown algae



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3. Name the male and female sex-organs in Funaria what type of sexual reproduction occurs in bryophytes.



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4. Name the following :

Edible brown algae



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5. Name the following :

Source of Iodine.



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6. Name the following :

Sources of alginic acid.



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7. What is agar?



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8. What are the uses of algin?



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9. Why most of the ferns are found in moist areas?



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10. What are liverworts?



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11. What is isogamy?



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12. How are vascular plants able to dominate the planet?



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13. Write any three similarities between moss and fern.



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14. What are kelps?



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15. What is living fossils? Give two examples.



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16. Cyanobacteria are classified under

A. Protista

B. Plantae

C. Monera

D. Algae

Answer:



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

A. Oogamy

B. Isogamy

C. Anisogamy

D. Zoogamy

Answer:



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18. Holdfast, stipe and frond constitutes the plant body in case of

A. Rhodophyceae

B. Chlorophyceae

C. Phaeophyceae

D. All of the above

Answer:



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19. A plant shows thallus level of organization. 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. Pteridophytes

B. Gymnosperms

C. Monocots

D. Bryophytes

Answer:



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20. 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 fertilization in pteridophytes

Answer:



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21. 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:



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22. The embryo sac of an Angiosperm is made up of

- A. 8 cells
- B. 7 cells and 8 nuclei
- C. 8 nuclei
- D. 7 cells and 7 nuclei

Answer:



23. If the diploid number of a flowering plant is 36. What would be the chromosome number in its endosperm

A. 36

B. 18

C. 54

D. 72

Answer:



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24. A 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:



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25. The giant Redwood tree (sequoia sempervirens) is a/an

A. Angiosperm

B. Free fern

C. Pteridophyte

D. Gymnosperms

Answer:



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26. Write 'True' or 'False'

Ferns are mostly found in dry climate.



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27. Write 'True' or 'False'

True indusium is present in Pteris.



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28. Write 'True' or 'False'

Group of sporangia is called sorus.



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29. Write 'True' or 'False'

In ferns there is self fertilization.



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30. Write 'True' or 'False'

The leave of ferns are microphylous.



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31. Write 'True' or 'False'

The sori bearing leaves of ferns are called sporophylles.



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32. Write 'True' or 'False'

The stele of Dryopteris is dictyostele.



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33. True or False

The fern is heterosporous.



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34. True or False

Megaspore on germination produces female gametophyte.



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35. True or False

In Selaginella gametophyte is dominant generation.



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36. Write 'True' or 'False'

In Selaginla sperms are multiflagellated.



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37. Write 'True' or 'False'

Rhizophore of Selaginella is 'organ suigeneris'.



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38. Write 'True' or 'False'

In precocious germination, the spore germinates while still in the sporangium.



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39. Write 'True' or 'False'

Group of sporangia is called sorus.



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40. The largest antherozoids are found in



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41. Write 'True' or 'False'

In ferns there is self fertilization.



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42. Fill in the following sentences with the suitable words: The yellow or brown spots which have sporangia in ferns are called.....



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43. Fill in the following sentences with the suitable words: Cones represent the

Organs in the gymnosperms.



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44. Fill in the following sentences with the suitable words: The gymnosperms are Seeded plants whereas angiosperms are



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45. Fill in the following sentences with the suitable words: The Are root like structures which help in anchorage and absorption of water in bryophytes.



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46. Fill in the following sentences with the suitable words: In pteridophytes branching is never.....



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47. Fill in the following sentences with the suitable words: Brown algae contains dominating pigment.....



Watch Video Solution

48. Fill in the following sentences with the suitable words: In pteridophytes branching is never.....



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49. Fill in the following sentences with the suitable words: Green algae are considered Of all terrestrial plants.



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50. Fill in the following sentences with the suitable words: In red algae reserve food material is Starch.



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51. Fill in the following sentences with the suitable words: Male gametes in red algae are called.....



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52. Fill in the following sentences with the suitable words: From red alga is used in the preparation of chocolate.



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53. Fill in the following sentences with the suitable words: Brown algae contains dominating pigment.....



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54. Fill in the following sentences with the suitable words: Pleurilocular sporangia in Ectocarpus contain..... Which are formed without meiosis.



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55. Fill in the following sentences with the suitable words: a green alga causes a disease on tea.



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56. Fill in the following sentences with the suitable words: Male gametes in red algae are called.....



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57. Fill in the following sentences with the suitable words: In Funaria spore germinates to give rise to



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58. Fill in the following sentences with the suitable words: Ferns contain underground stem called.....



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59. Choose the correct alternative:

In anisogamy/oogamy, the female gamete is bigger, passive, non-motile and laden with food.



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60. Choose the correct alternative:

In rhodophyceae there is predominance of pigment r-phycoerythrin/phycoerythrin.



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61. Choose the correct alternative



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62. Choose the correct alternative



Watch Video Solution

63. Choose the correct alternative



Watch Video Solution

64. Choose the correct alternative



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65. Name any red alga which is used as vegetable.



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66. Which type of flagella are present in brown algae.





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67. Name any branched filamentous green alga.



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68. In which alga, sexual reproduction takes place by conjugation?



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69. Name the alga from which algin is prepared commercially.



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70. Name any branched filamentous green alga.



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71. In which alga, sexual reproduction takes place by conjugation?



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72. Name a plant , where rhizoids are multicellular, branched and obliquely septate.



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73. In which bryophyte, sporogonium is embedded in thallus?



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74. Name the filamentous structure which appears in mosses due to germination of spore.



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75. What is the specific term for cluster of sporangia in Dryopteris.



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76. Why plant body of Dryopteris is called sporophyte?



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77. What are the fibrous growth present on bread?



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78. How many electrons are present in Al^{3+} ion ?



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79. How many cotyledons are present in *Pinus* embryo?



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80. Give an example of a fuel cell?



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81. Name the smallest angiospermic plant.



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82. What is the genetic constitution of endosperm in angiosperms?



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83. What do you understand by DNA?



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84. What are water blooms?



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85. What is the mode of nutrition in bacteria?



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86. Why seed plants are most successful?



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87. What is algin?



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88. What are coralloid roots?



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89. Name the largest unicellular alga.



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90. What is polyembryony? How can it be commercially exploited?



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91. How would you know if the barometric tube contains air or not in the space above mercury

column?



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92. What is heterospory? Write its significance.



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93. Distinguish between Cryptogamae and Phanerogamae.



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94. Draw a sketch of unicellular non-flagellated member of algae.



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95. What are the common modes of reproduction in algae?



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96. How does algae differ from fungi?



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97. Name the different pigments found in algae.



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98. Describe briefly alternation of generation in bryophytes.



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99. Enumerate the distinguishing features of pteridophytes.



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100. Name the four classes of pteridophytes.



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101. Explain the nature of sporophylls in pteridophytes.





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102. Describe the important characteristics of gymnosperms.



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103. How are the delicate and soft fungal hyphae able to penetrate hard timbers?



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104. What characters of seed plants make them specially adapted to life on land ?



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105. Describe the similarities and differences in the sexual reproduction of moss and fern.



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106. Show peristalsis with the help of diagram.



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107. Fill in the blanks

Time interval between pollination and fertilization in Pinus is..... .



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108. Draw diagrammatic representation of life cycle of Dryopteris.



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109. Describe characteristics and uses of coke.



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110. Describe the structural organization of a fern sporophyte. Write the structural characteristics of gymnosperms. What are the identifying features of angiosperms?



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111. Draw the diagrammatic life cycle of an angiosperm.



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112. Give an account of double fertilization in angiosperms.



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113. What is money puzzle and red wood tree?



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114. What is sulphur shower?



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115. How endosperm in angiosperms differ from endosperm of gymnosperms?



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116. What is agar?



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117. What are kelps?



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118. Yellow-green pigment is found in

A. Xanthophyta

B. Chlorophyta

C. Phaeophyta

D. Rhodophyta

Answer:



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119. Mannitol is the stored food in

A. Chara

B. Porphyra

C. Fucus

D. Gracillaria

Answer:



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120. Which o of the following has haplontic life cycle?

A. Funaria

B. Polytrichum

C. Ustilago

D. Wheat

Answer:



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121. Which one of the following plants is monoecious?

A. Marchantia

B. Pinus

C. Cycas

D. Papaya

Answer:



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122. Which one is the wrong pairing for the disease and its causal organism?

A. Late blight of potato-*Alternaria solani*

B. Black rust of wheat-*Puccinia graminis*

C. Loose smut of wheat-*Ustilago nuda*

D. Root-knot of vegetables-*Meloidogyne* sp.

Answer:



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123. Which one of the following is a vascular cryptogam?

A. *Equisetum*

B. *Ginkgo*

C. Marchantia

D. Cedrus

Answer:



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124. Which one of the following is considered important in the development of seed habit?

A. Dependent sporophyte

B. Heterospory

C. Haplontic life cycle

D. Free living gametophyte

Answer:



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125. The lichens represent symbiotic relationship between

A. Algae and bacteria

B. Fungi and higher plants

C. Algae and fungi

D. Viruses and bacteria.

Answer:



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126. Which of the following are commonly known as imperfect fungi

A. Ascomycetes

B. Basidiomycetes

C. Deuteromycetes

D. Phycomycetes

Answer:



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127. Cell in some filamentous cyanobacteria, which is specialised for nitrogen fixation is called

A. Heterocyst

B. Mesosome

C. Volutin

D. Phycobillisome

Answer:



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128. A plant disease in which pathogen is seen as a cottony growth on the surface of the host is called

A. Downy mildew

B. Powdery mildew

C. Smut

D. Rust

Answer:



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129. Red algae differ from green algae and brown algae in having

A. No chlorophyll a

B. No differentiated cells

C. No flagellated stage in their life cycle

D. Haemoglobin within their cells

Answer:



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130. Protein rich alga is

A. Protosiphon

B. Porophyridium

C. Gelidium

D. Spirulina

Answer:



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131. Which of the following is an unicellular sac-fungus?

A. Claviceps

B. Saccharomyces

C. Penicillium

D. Aspergillus

Answer:



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132. Which one of the following is correct?

A. They are parasitic forms which cause diseases in animals

B. They have protein rich layer called pellicles

C. They are saprophytic protists

D. they are commonly called diatoms

Answer:



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133. Which of the following does not belong to the kingdom Protista?

A. Chrysophytes

B. Euglenoids

C. Ascomycetes

D. Dinoflagellates

Answer:



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134. Find out the correct statement

- A. Viroid contains Rna of low molecular weight and protein coat
- B. A virus contains both RNA and DNA
- C. Viruses are obligatory parasites
- D. Viruses that infect plants have double stranded RNA

Answer:



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135. Which of the following Pteridophytes belong to class Pteropsida?

- A. Equisetum and Psilotum
- B. Lycopodium and Adiantum
- C. Selaginella and Pteris
- D. Pteris and Adiantum

Answer:



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136. Which one of the following is considered important in the development of seed habit?

A. Megaspores possess endosperm and embryo surrounded by seed coat

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

C. female gametophyte is free and gets dispersed like seeds

D. female gametophyte lacks archegonia.

Answer:



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137. Consider the following four statements whether they are correct or wrong?

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:



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138. The major pigments in rhodophyceae are

A. Chlorophyll a and b

B. chlorophyll a,c and fucoxanthin

C. Chlorophyll a,d and phycoerytherin

D. None of the above

Answer:



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139. The largest antherozoids are found in

A. Cycas

B. Cedrus

C. Ephedra

D. Pinus

Answer:



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140. Why are bryophytes called as amphibians of plant kingdom?

A. They need a layer of water for reproduction

B. They are found in mostly aquatic condition

C. They have vascular tissues

D. All of these

Answer:



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141. Which one of the following pairs is wrongly matched?

A. Ginkgo-Archegonia

B. Salvinia-Prothallus

C. Virodis-RNA

D. Mustard-Synergids

Answer:



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142. In the five kingdom classification, Chlamydomonas and Chlorella have been included in

A. Protista

B. Algae

C. Plantae

D. Monera

Answer:



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143. The heterosporous pteridophytes show certain characteristic, which are precursor to the seed habit in gymnosperms. Explain.

A. Selaginella

B. Psilotum

C. Equisetum

D. Adiantum

Answer:



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144. Choose the correct order of colours with respect to pigments chlorophyll, phycoerythrin and fucoxanthin

A. Green, red and brown

B. Brown, green and red

C. Red, green and brown

D. Brown, red and green

Answer:



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145. Which of the following are the characters of dinoflagellates?

- A. Palankton c golden yellow aglae with soap box like strucutre
- B. Marine red biflagellated protista
- C. Appear yellow, green, brown, blue and red in colour
- D. Biflagellated organisms with pellicle.

Answer:



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146. The green alga rich in proteins used as food supplements even by space travellers is

A. Chlamydomonas

B. Volvox

C. Spirogyra

D. Spirulina

Answer:



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147. Isogamous condition with non-flagellated gametes is found in

A. Spirogyra

B. Volvox

C. Fucus

D. Chlamydomonas

Answer:



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148. Monoecious pal Chara shows occurrence of

A. stamen and carpel of the same plant

B. upper antheridium and lower oogonium
on the same plant

C. upper oogonium and lower antheridium
on the same plant

D. antheridiophore and archegoniophore
on the same plant

Answer:



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149. Study the following distribution table and answer the questions given below: Which class has the lowest frequency?

A. In *liverworts, mosses, and ferns* gametophytes are free-living

B. *Gymnosperms and some ferns* are *heterosperms and some ferns* are *heterosporous*

C. Sexual reproduction in Fucus, Volvox and

Albugo is oogamous

D. The sporophyte in liverworts is more

elaborate than that in mosses

Answer:



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150. Which of the following are likely to be present in deep sea water?

A. Eubacteria

B. Blue-green algae

C. Saprophytic fungi

D. Archaeobacteria

Answer:



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151. Meiosis takes place in

A. Conidia

B. Gemmule

C. Megaspore

D. Meicyte

Answer:



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152. The following plant placed under dicots but lacks cotyledons is

A. Maize

B. Cuscuta

C. Mustard

D. Linseed

Answer:



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153. Which of the following is wrong about Chara?

- A. Upper oogonium and lower round antheridium
- B. Globule and nucleole present on the same plant
- C. Upper antheridium and lower oogonium
- D. Globule is male reproductive structure

Answer:



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154. Anoxygenic photosynthesis is characteristics of

A. Rhodospirillum

B. Spirogyra

C. Chlamydomonas

D. Ulva

Answer:



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155. In which one of the following processes CO_2 is not released?

- A. Aerobic respiration in plants
- B. Aerobic respiration in animals
- C. Alcoholic fermentation
- D. Lactate fermentation

Answer:



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156. Which of the following is responsible for peat formation?

A. Marchantia

B. Riccia

C. Funaria

D. Sphagnum

Answer:



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157. Which one of the following shows isogamy with non-flagellated gametes?

A. Sargassum

B. Ectocarpus

C. Ullothrix

D. Spirogyra

Answer:



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158. Which one of the following living organisms completely lacks a cell wall?

- A. Cyanobacteria
- B. Sea-fan
- C. Saccharomyces
- D. Blue-green algae.

Answer:



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159. Which one of the following fungi contains hallucinogens?

A. *Morchella esculenta*

B. *Amanita muscara*

C. *Neurospora* sp.

D. *Ustilago* sp.

Answer:



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160. Male gametophyte with least number of cells is present in

A. Pteris

B. Funaria

C. Liliium

D. Pinus

Answer:



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

- A. Ulothrix
- B. Chlorella
- C. Spirogyra
- D. Polysiphonia

Answer:



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162. In angiosperms, during development of embryo, the suspensor cells develop from

- A. Oospore
- B. Integument
- C. Endosperm
- D. Cotyledon

Answer:



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163. The gymnospermic endosperm differs from an angiospermic endosperm because in gymnosperms it is

A. Haploid and developed from female gametophyte

B. Diploid and developed after fertilisation

C. Triploid and developed after fertilisation

D. Triploid and developed before fertilisation

Answer:



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164. Which of the following is not a bryophyte?

A. Hepaticopsida

B. Anthoceropsida

C. Bryopsida

D. Lycopsidea

Answer:



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165. This provides brown colour to the algae

A. Chlorophyll a

B. chlorophyll b

C. Phycocyanin

D. Fucoxanthin

Answer:



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166. Which one is a red algae?

A. Gelidium

B. Chlorella

C. Volvox

D. Ulothrix

Answer:



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167. Male gametophyte in angiosperms produces

A. Single sperm and two vegetative cells

B. Three sperms

C. Two sperms and a vegetative cell

D. Single sperm and a vegetative cell

Answer:



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168. Which one is wrong statement?

A. Haploid endosperm is typical feature of
Gymnosperms.

B. Brown algae have chlorophyll a and c
and fucoxanthin

C. Archegonia are found in Bryophyte,
Pteridophyte and Gymnosperms.

D. Mucor has biflagellate zoospore.

Answer:



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169. Microtubules are the constituents of

- A. Cilia, flagella and peroxisomes
- B. Spindle fibres, centrioles and cilia
- C. Centrioles, spindle fibres and chromatin
- D. Centrosome, nucleosome and centrioles

Answer:



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170. In bryophytes and pteridophytes, transport of male gametes requires which of the following medium :

A. Wind

B. Birds

C. Insects

D. Water

Answer:



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171. Chrysophytes, Euglenoids, Dinoflagellates and Slime moulds are included in Kingdom

A. Monera

B. Protista

C. Fungi

D. Animalia

Answer:



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172. Find out the false (F) statement from the following:

Fucus and Sargassum both shows heterothallic habit



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173. Find out the false (F) statement from the following:

Auxospores are found in diatom.



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174. Find out the false (F) statement from the following:

Viruses are more abundant in marine and fresh water.



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175. Find out the false (F) statement from the following:

Marsilea, Salvinia, Azolla are aquatic, eusporangiate and heterosporous.



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176. Find out the false (F) statement from the following:

All bacteria have single circular chromosome per cell.



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177. Find out the false (F) statement from the following:

All desmids are found in marine habitat but

diatoms are found as phytoplankton large in deep lakes.



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178. Find out the false (F) statement from the following:

Welwitschia has reproductive structure in its juvenile stage.



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179. Find out the false (F) statement from the following:

Moss shows diplobiontic life cycle.



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180. Fill in the blanks: Cycas, Pinus, Coralloid root, Vivipary, Anabaena, Nostoc, Marsilea, Usina, Oscillatoria, Pneumatophore. Eichhornia.

..... Is present in Rhizophora. It also shows



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181. Fill in the blanks: Cycas, Pinus, Coralloid root, Vivipary, Anabaena, Nostoc, Marsilea, Usina, Oscillatoria, Pneumatophore. Eichhornia.

..... Is present in Rhizophora. It also shows



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182. Fill in the blanks: Cycas, Pinus, Coralloid root, Vivipary, Anabaena, Nostoc, Marsilea, Usina, Oscillatoria, Pneumatophore. Eichhornia.

..... Is an aquatic pteridophyte and..... Is an aquatic angiosperm.



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183. Fill in the blanks: Cycas, Pinus, Coralloid root, Vivipary, Anabaena, Nostoc, Marsilea,

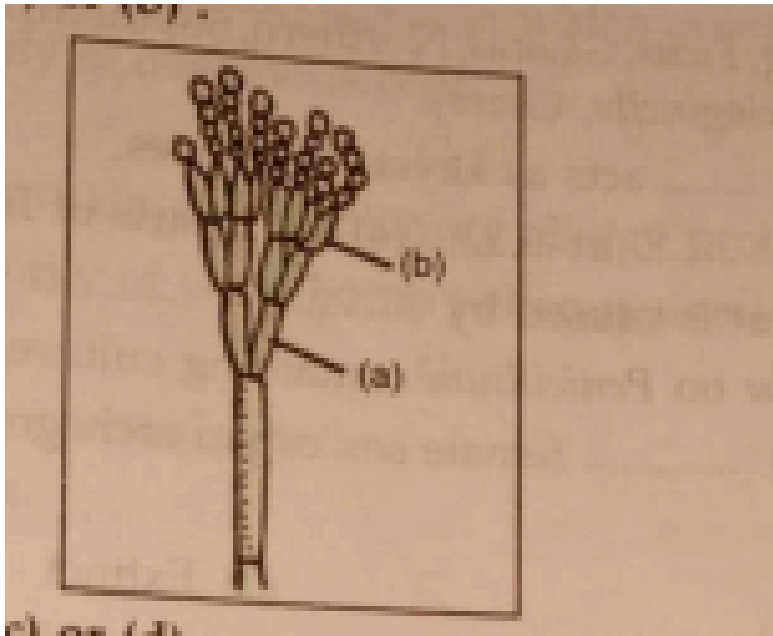
Usina, Oscillatoria, Pneumatophore.

Eichhornia.

Heterocyst is found in..... .

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184. Identify the figure label (a) and (b)

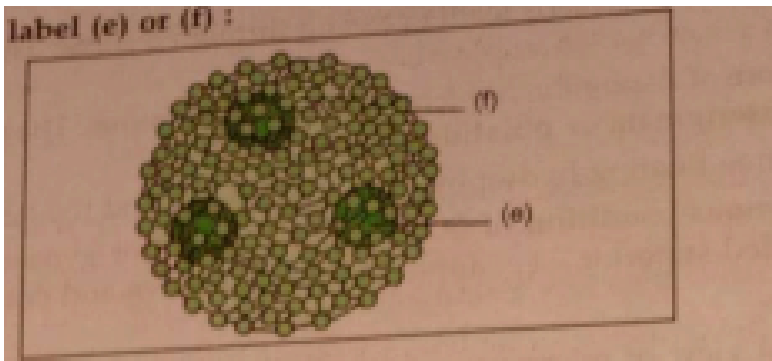




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185. Identify the given diagram and label (e) or

(f):



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186. Fill in the blanks with the help of the following given words:

[Extinct, North-western, Tropical, fig, ficus, Glomus, Northern, Southern, Pinus, Diversity, Ustilago, Rust, Smut, Staphyloc. Flemming, Azospirillum, Pasteur, Selaginella, Chara]

In.....(1).....area.....(2).....acts as keystone species.



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187. Fill in the blanks with the help of the following given words:

[Extinct, North-western, Tropical, fig, ficus, Glomus, Northern, Southern, Pinus, Diversity, Ustilago, Rust, Smut, Staphyloc. Flemming, Azospirillum, Pasteur, Selaginella, Chara]

Loose.....(5)..... in wheat is caused by
.....(6).....



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188. Fill in the blanks with the help of the following given words:

[Extinct, North-western, Tropical, fig, ficus, Glomus, Northern, Southern, Pinus, Diversity, Ustilago, Rust, Smut, Staphyloc. Flemming, Azospirillum, Pasteur, Selaginella, Chara]

Beside Polytrichum and(9)..... female sex organ archegonia are also present in(10).....



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189. Fill in the blanks with the help of the following given words:

[Extinct, North-western, Tropical, fig, ficus, Glomus, Northern, Southern, Pinus, Diversity, Ustilago, Rust, Smut, Staphyloc. Flemming, Azospirillum, Pasteur, Selaginella, Chara]

Beside Polytrichum and(9)..... female sex organ archegonia are also present in(10).....



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190. Fill in the blanks with the help of the following given words:

[Extinct, North-western, Tropical, fig, ficus, Glomus, Northern, Southern, Pinus, Diversity, Ustilago, Rust, Smut, Staphyloc. Flemming, Azospirillum, Pasteur, Selaginella, Chara]

In.....(1).....area.....(2).....acts as keystone species.



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191. Match the following

Column A	Column B
(i) Phycoerythrin	(a) <i>Sargassum</i>
(ii) Fucoxanthin	(b) Diatom
(iii) Chlorophyll	(c) <i>Spirogyra</i>
(iv) Absence of pigment	(d) <i>Porphyra</i>
	(e) <i>Harveyella</i>



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192. Match the following

Column A	Column B
(i) <i>Chlamydomonas</i>	(a) Angiosperm
(ii) <i>Cycas</i>	(b) Pteridophyte
(iii) <i>Adiantum</i>	(c) Algae
(iv) <i>Rosa</i>	(d) Gymnosperm
	(e) Fungus



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193. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion and Reason are false.

Assertion: Bacteriophages are a type of

bacteria. Reason. Bacteria are unicellular, eukaryotic organisms.

A. A

B. B

C. C

D. D

Answer:



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194. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion and Reason are false.

Assertion: Bacteriophages are a type of

bacteria. Reason. Bacteria are unicellular, eukaryotic organisms.

A. A

B. B

C. C

D. D

Answer:



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195. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion and Reason are false.

Assertion: Bioluminescence is exhibited by

Entamoeba. Reason: Bioluminescence is the emission of high temperature by living beings.

A. A

B. B

C. C

D. D

Answer:



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196. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion and Reason are false.

Assertion: Algae are characterized by

multicellular sex organs in which every cell forms the gamete. Reason: Sexual reproduction in algae is only of oogamous type.

A. A

B. B

C. C

D. D

Answer:



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197. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion and Reason are false.

Assertion: Many visitors to hills suffer from skin and respiratory allergy problems. Reason: Conifer trees produce a large quantity of wind borne pollen grains.

A. A

B. B

C. C

D. D

Answer:



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198. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion and Reason are false.

Assertion: Protonema of Funaria resembles green algae. Reason: It forms antheridia and archegonia.

A. A

B. B

C. C

D. D

Answer:



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199. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion and Reason are false.

Assertion: In angiosperms the conduction of

water is more efficient because their xylem has vessels. Reason: Conduction of water by vessel elements is an active process with energy supplied by xylem parenchyma rich in mitochondria.

A. A

B. B

C. C

D. D

Answer:



200. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion

and Reason are false.

Assertion: Red algae contribute in producing coral reefs. Reason: Some red algae secrete and deposit calcium carbonate over their cell walls.

A. A

B. B

C. C

D. D

Answer:



201. These questions consist of two statements each, printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses. A. If both Assertion and Reason are true and Reason is a correct explanation of the Assertion. B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion. C. If Assertion is true but Reason is false. D. If both Assertion

and Reason are false.

Assertion: Chlorella could serve as a potential source of food and energy. Reason: When dried, chlorella has 15% protein, 45% fat, 10% carbohydrate, 20% fibre, 10% minerals and vitamins.

A. A

B. B

C. C

D. D

Answer:



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202. Note the relationship between the first two words and suggest a suitable word for the fourth place: Angiosperms:Roots : Rhodophyta
::



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203. Note the relationship between the first two words and suggest a suitable word for the

fourth place: Fern , Prothallus :: Moss :



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204. Note the relationship between the first two words and suggest a suitable word for the fourth place: Moss : Capsule :: Fern :



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205. Note the relationship between the first two words and suggest a suitable word for the

fourth place: Angiosperms: Flowers ::

Conifers.....



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206. Give reason for the following

Sexual reproduction is of oogamous type in bryophytes.



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207. Give reason for the following

In algae and fungi, plant body is thallus.



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208. Give reason for the following

In red algae and blue green algae biliproteins are present.



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209. Give reason for the following

Cell wall of red algae protects from drying or freezing on their exposure to air.



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210. Give reason for the following

Male sex organs are called antheridia and female sex organs are called archegonia in Bryophytes.



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211. Give reason for the following

Chlamydomonas is motile.



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212. Reasoning type questions:

Selaginella bears two types of spores and Dryopteris (fern) bears on one type of spores in pteridophytes.



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213. Reasoning type questions:

Moss like Funaria is amphibious in nature.



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214. Reasoning type questions:

In ferns like Pteris, leaf is called frond.



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215. Give reason for the following

Seeds are enclosed by fruit wall or pericarp.



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216. Give reason for the following

Leaves in ferns are large, compound and of megaphyllous type.



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217. Give reason for the following

In Brassica, seeds are formed but it is not placed in gymnosperms.



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218. Give reason for the following

Life cycle is diplontic in angiosperms.



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219. Give reason for the following

Double fertilization is present in angiosperms.



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220. True and False Type Questions

Filiform apparatus is developed in antipodal cells.



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221. Give reason for the following

In angiosperms, one of the male gametes fuses with egg to form zygote and second male gamete fuses with polar nuclei to form primary endosperm nucleus.



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222. The oldest gymnospermous tree is

A. *Zamia pygmaea*

B. *Pinus longavaea*

C. *Sequoia sempervirens*

D. *Taxodium mucronatum*

Answer:



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223. Leaves of *Nelumbo* plant are

A. Epistomatic

B. Hypostomatic

C. Amphistomatic

D. None of these

Answer:



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224. In which phylum the body is segmented

A. Gelidium

B. Riccia

C. Lyocopodium

D. Equisetum

Answer:



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225. Spirulina belongs to kingdom

A. Monera

B. Fungi

C. Plantae

D. Animalia

Answer:



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226. In which of the following male and female gametophytes do not have free living independent existence?

A. Polytrichum

B. Cedrus

C. Pteris

D. Funaria

Answer:



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227. Which one of the following is heterosporus?

A. Adiantum

B. Equisetum

C. Dryopteris

D. Salvinia

Answer:



228. Coralloid root is the feature of

A. Cycas

B. Mosses

C. Pinus

D. Selaginella

Answer:



229. The yielding of rice is increased by

A. Azolla

B. Nostoc

C. Anabaena

D. Clostridium

Answer:



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230. Club moss belongs to

A. Algae

B. Pteridophyta

C. Fungi

D. Bryophytes

Answer:



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231. Cleavage polyembryony occurs in

A. Pinus

B. Mini cycas

C. Cycas

D. Ephedra

Answer:



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232. In Funaria, stomata are present on the

A. Stem

B. Leaves

C. Capsule

D. Apophysis

Answer:



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233. Which of the following is a prokaryote?

A. Amoeba

B. Spirogyra

C. Bacteria

D. Chlamydomonas

Answer:



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234. Male gamete in angiosperms is produced by

- A. Generative cell
- B. Microspore cell
- C. Vegetative cell
- D. Tube cell

Answer:



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235. Meristematic tissue in vascular bundle is:

A. Phellen

B. Procambium

C. Interfascicurla cambium

D. Fascicular cambium

Answer:



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236. A vibration magnetometer consists of two identical bar magnets, placed one over the other, such that they are mutually perpendicular and bisect each other. The time period of oscillation in a horizontal magnetic field is 4 second. If one of the magnets is taken away, find the period of oscillation of the other in the same field.

A. Germinating pollen grain

B. Embryo

C. Unfertilized egg

D. Seed

Answer:



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237. External fertilization occurs in majority of

A. Algae

B. Fungi

C. Liverworts

D. Mosses

Answer:



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238. Which of the following combinations of characters is true for slime moulds?

A. Parasitic, plasmodium without walls,
spores dispersed by air currents

B. Saprophytic, plasmodium without walls,
spores dispersed by water

C. Saprophytic plasmodium without walls,
spores dispersed by air currents

D. Parasitic , plasmodium without walls,
spores dispersed by water

Answer:



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239. In which of the following , pyrenoids are present

A. Chara, fucus, Polysiphonia

B. Volvox, Spirogyra, Chlamydomonas

C. Porphyra, Ectocarpus, Ulothrix

D. Sargassum, Laminaria, Gracillaria.

Answer:



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240. Resin and turpentine are products of

A. Teak

B. Oak

C. Eucalyptus

D. Pine

Answer:



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241. Both chlorophyll a and b are present in

A. Rhodrophyceae

B. Phaeophyceae

C. Chlorophyceae

D. None of these

Answer:



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242. Agar-agar is obtained from the following

A. Gelidium

B. Nostoc

C. Chlamydomonas

D. Ulothrix

Answer:



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243. The green alga rich in proteins used as food supplements even by space travellers is

A. Ulothrix

B. Spirogyra

C. Nostoc

D. Chlorella

Answer:



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244. Component of cell wal of fungi is

A. Cellulose

B. Pectin

C. Chitin

D. Dextrin

Answer:



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245. Which of the following is an edible fungi?

A. Mucor

B. Penicilium

C. Rhizopus

D. Agaricus

Answer:



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246. Describe briefly alternation of generation in bryophytes.



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247. What are elaters?



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248. Which type of venation is present in ferns?



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249. Which type of sperms are present in cycas?



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250. What is protonema?



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251. Most algal genera show haplontic life style. Name alga which is

Haplo-diplontic



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252. Most algal genera show haplontic life style. Name alga which is

Diplontic.





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253. What is the ecological importance of pteridophytes?



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254. What are bogs?



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255. Name three groups of plants that bear archegonia. Briefly describe the life cycle of any one of them.



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256. Mention plodiy of the following:

Zygote



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257. Mention ploidy of the following:

Ovum



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258. Mention ploidy of the following:

Gemma of Marchantia



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259. Mention ploidy of the following:

Prothallus of ferns



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260. How natural system of classification differs from artificial system of classification.



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261. What is heterospory? Write its significance.



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262. Name the alternative form of gene



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263. Both gymnosperms and angiosperms bear seeds, then why are they classified

separately?



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264. Define Cytotaxonomy



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265. Define Chemotaxonomy



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266. Describe various forms of asexual reproduction in algae.



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Example

1. What is the basis of classification of algae?



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2. When and where does reduction division take place in the life cycle of a liverwort, a moss, a fern, a gymnosperm and an angiosperm?



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3. Name three groups of plants that bear archegonia. Briefly describe the life cycle of any one of them.



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4. Mention the ploidy of the following:
protonemal cell of a moss: primary endosperm
nucleus in dicot, leaf cell of a moss, prothallus
cell of a fern: gemma cell in Marchantia,
meristem cell of monocot, ovum of a liverwort,
and zygote of a fern.



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5. Write a note on economic importance of
algae and gymnosperms.



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6. Both gymnosperms and angiosperms bear seeds, then why are they classified separately?



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7. What is heterospory? Briefly comment on its significance. Give two examples.



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8. Explain the following with suitable examples: Ferromagnetism



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9. Explain the following with suitable examples.

Antihistamines



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10. Explain briefly the following terms with suitable examples: archegonium



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11. Explain the following with suitable examples.

Antimicrobials



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12. Explain briefly the following terms with suitable examples: sporophyll



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13. Explain the following with suitable examples: Isogamy



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14. Differentiate between the following: red algae and brown algae



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15. Differentiate between the following liverworts and moss



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16. Differentiate between the following

homosporous and heterosporous
pteridophytes



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17. Differentiate between the following

syngamy and triple fusion.



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18. How would you distinguish monocots and dicots on the basis of three main characters?



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19. Food is stored as Floridean starch in Rhodophyceae. Mannitol is the reserve food material of which group of algae?



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20. Write examples of plants which exhibit haplontic life cycle.



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21. Give an example of plants with Diplontic life cycle



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22. Give an example

Haplo-diplontic life cycle.



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23. The plant body in higher plants is well differentiated and well developed. Roots are the organs used for the purpose of absorption. Which is the equivalent of roots in the less developed lower plants?



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24. Most algal genera show haplontic life style.

Name alga which is

Haplo-diplontic



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25. Most algal genera show haplontic life style.

Name alga which is

Diplontic.



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26. In bryophytes male and female sex organs are called..... and



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27. Why are bryophytes called as amphibians of plant kingdom?



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28. The male and female reproduction organs of several pteridophytes and gymnosperms are comparable to floral structures of angiosperms. Make an attempt to compare the various reproductive parts of pteridophytes and gymnosperms with reproductive structures of angiosperms.



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29. Heterospory i.e. formation of two types of spores - microspores and megaspores is a characteristic feature in the life cycle of a few members of pteridophytes and all spermatophytes. Do you think heterospory has some evolutionary significance in plant kingdom?



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30. How far does Selaginella one of the few living members of lycopodiales (pteridophytes) fall short of seed habit.



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31. Each plant or group of plants has some phylogenetic significance in relation to evolution. Cycas, one of the few living members of gymnosperms is called as the 'relic of past'. Can you establish a phylogenetic

relationship of Cycas with any other group of plants that justifies the above statement?



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32. The heterosporous pteridophytes show certain characteristic, which are precursor to the seed habit in gymnosperms. Explain.



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33. Comment on the life cycle and nature of a fern prothallus.



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34. How are the male and female gametophytes of pteridophytes and gymnosperms different from each other?



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35. In which plant will you look for mycorrhiza and corolloid roots? Also explain what these terms mean.



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36. Gametophyte is a dominant phase in the life cycle of a bryophyte. Explain.



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37. With the help of a schematic diagram describe the haplo-diptonic life cycle pattern of a plant group.



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38. Lichen is usually cited as an example of 'symbiosis' in plants where an algal and a fungal species live together for their mutual benefit. Which of the following will happen if

algal and fungal partners are separated from each other ?



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39. Explain why sexual reproduction in angiosperms is said to take place through double fertilization and triple fusion. Also draw a labelled diagram of embryo sac to explain the phenomena.



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40. Draw labelled diagrams of

Female and male thallus of a liverwort
(marchantia)



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41. Draw labelled diagrams of

Gametophyte and sporophyte of Funaria.



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42. Draw labelled diagrams of

Alternation of generation in Angiosperms.



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43. What are dimorphic leaves?



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44. Define circinate ptyxis.



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45. Explain briefly the following terms with suitable examples: sporophyll



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46. Name a plant which is called living fossil



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47. Name the female gametophyte in angiosperms



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48. What is peat?



[Watch Video Solution](#)

49. What is hypnospor?



[Watch Video Solution](#)

50. Define siphonogamy.



[Watch Video Solution](#)

51. What is endosperm?



[Watch Video Solution](#)

52. What is frond?



[Watch Video Solution](#)

53. Which type of ovules are present in gymosperms?



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54. Which green alga is used by space travellers as protein rich food?



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55. Name the algae where food is stored in the form of laminarin.



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56. Give one example each of Chlorophyceae, Phaeophyceae and Rhodophyceae



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57. How are vascular plants able to dominate the planet?



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58. Name the pigments, present in brown algae.



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59. Name the pigments present in red algae.



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60. Name some algae which are used as food.



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61. Why mosses are considered ecologically important?



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62. Which one of the following is considered important in the development of seed habit?



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63. Define numerical taxonomy.



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64. Write a note on economic importance of algae and gymnosperms.



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65. Discuss some salient features of dicotyledons.



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66. Write about formation of primary endosperm nucleus



[Watch Video Solution](#)

67. What is double fertilization?



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68. What is the advantage of development of seed habit in seed plants.



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69. How bryophytes differ from pteridophytes.



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70. Describe some distinguishing features of mosses.



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71. Write two differences between gymnosperms and angiosperms.



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72. Why *Ginkgo biloba* is called living fossil?



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73. How natural system of classification differs from artificial system of classification.



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74. Differentiate between antheridia and archegonia.



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75. Discuss haplontic life cycle?



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76. Write briefly about

Fission



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