

BIOLOGY STANDARD XI

Worksheet 3.3

PLANT KINGDOM

Q.1. Chose the correct option from the given options:

1. Meaning of gymnosperm is:
 - a. Full seed.
 - b. Naked seed.
 - c. Hidden seed.
 - d. Round seed.
2. Gymnosperms among these are
 - a. Conifer.
 - b. Pinus.
 - c. Cedar.
 - d. All.
3. Plant group that has mostly ornamental plants are:
 - a. Pteridophytes.
 - b. Gymnosperms.
 - c. Angiosperms.
 - d. None.
4. Flowering plants belong to:
 - a. Pteridophytes.
 - b. Gymnosperms.
 - c. Angiosperms.
 - d. None.
5. Prominent stage in angiosperm is:
 - a. Independent sporophyte generation.
 - b. Dependent gametophyte generation.
 - c. Both.
 - d. None.
6. The giant Redwood tree (*Sequoia sempervirens*) is a/an
 - a. Angiosperm
 - b. Free fern
 - c. Pteridophyte
 - d. Gymnosperm
7. 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
8. 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

Q.2. Give an example of plants with

- a. Haplontic life cycle
- b. Diplontic life cycle
- c. Haplo- diplontic life cycle

Q3. Each plant or group of plants has some phylogenetic significance in relation to evolution:

- I. Cycas, one of the few living members of gymnosperms is called as the 'relic of past'.
- II. Can you establish a phylogenetic relationship of Cycas with any other group of plants that justifies the above statement?

Q4. How are the male and female gametophytes of pteridophytes and gymnosperms different from each other?

Q5. In which plant will you look for mycorrhiza and coralloid roots? Also explain what these terms mean.

Q6. 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.

Q7. Draw labelled diagram of "Alternation of generation in Angiosperm".

References:

- 1 NCERT Text Book of Biology, Class XI
- 2 Biology Exemplar class XI

Prepared by:
Neeraj Bamania.