PLANT MORPHOLOGY QUIZ

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1. Flower in which the sepals, petals and stamens (androecium) are attached below the ovary (gynoecium) are:
   a. Hypogynous
   b. Perigynous
   c. Epigynous
   d. None of the above

2. Flower that lacks one of the four sets of structures (calyx, corolla, androecium, gynoecium) is:
   a. Imperfect
   b. Incomplete
   c. Complete
   d. None of the above

3. If unisexual male and female flowers both occur on the same plant the species is called
   a. Monoecious
   b. Dioecious
   c. Homoecious
   d. Heteroecious

4. If anthers shed their pollen before the stigma is receptive in the same flower it is:
   a. Protogynous
   b. Protandrous
   c. Protoandrogynous
   d. None of the above

5. Primitive flower types:
   a. Are incomplete
   b. Have many petals, stamens or pistils
   c. Are symmetrical
   d. None of the above

6. Advanced flower types have:
   a. Superior ovaries
   b. Separate petals
   c. Inferior ovaries
   d. None of the above

7. A dry single seeded fruit in which the pericarp has grown out to form a wing is:
   a. Achene
   b. Nut
   c. Samara
   d. None of the above

8. A fruit made up of several ovaries from a single flower is a
   a. Multiple fruit
   b. Aggregate fruit
   c. Compound fruit
   d. None of the above

9. What is missing from the (angiosperm) mega-gametophyte, which was present in the pine?
   a. Archegonia
   b. Antheridia
   c. Archegoniophore
   d. Antheridiophore

10. What are the food storage tissues in these seeds?
    a. Endosperm
    b. Cotyledon(s)
    c. Hypocotyls
    d. Endosperm and cotyledon(s)
11. What stage in the life cycle does a flowering plant represent?
   a. Gametophyte
   b. Sporophyte
   c. Strobilus
   d. None of the above

12. Are flowering plants:
   a. Homosporous
   b. Heterosporous
   c. Non-spore forming
   d. None of the above

13. Does the male gametophyte develop
   a. Free swimming sperm
   b. Many cells
   c. Three cells
   d. None of the above

14. The eight cells typically formed in the ovule represent:
   a. Megaspores
   b. An archegonium
   c. Female gametophyte
   d. None of the above

15. The sperm nuclei travel down the pollen tube to fuse with:
   a. The egg
   b. The egg and the synergids
   c. The egg and the central cell
   d. None of the above

16. The ploidy level of the endosperm is:
   a. 3n
   b. 2n
   c. 1n
   d. None of the above

17. A plant with a net-like pattern of veins on its leaves is likely to be:
   a. A monocot
   b. A dicot
   c. None of the above

18. A plant whose flowers have many petals, stamens or pistils is likely to be a:
   a. Monocot
   b. Dicot
   c. None of the above

19. A plant whose flowers have three petals, stamens or pistils is likely to be a:
   a. Monocot
   b. Dicot
   c. None of the above

20. What is the critical difference between angiosperms and gymnosperms?
   a. Seed is enclosed in sporophylls that form one or more carpels of the ovary
   b. Seed is on the surface of the sporophyll
   c. None of the above

**ANSWERS:**
1. a, 2. a, 3. a, 4. b, 5. c, 6. c, 7. c, 8. b, 9. a, 10. d,
11. b, 12. b, 13. c, 14. c, 15. c, 16. a, 17. a, 18. b, 19. a, 20. a

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