

**Subject** : **Botany**  
**Paper name** : **Pteridophytes, Gymnosperms, Palaeobotany, Palynology**  
**Paper No** : **BOT/VI/CC/17**  
**Semester** : **VI Semester**

**A. Multiple choice questions**

- Calamites* belongs to the class  
(a) Lycopsidea (b) Sphenopsida (c) Pteropsida (d) Psilopsida
- Sporocarp is formed in  
(a) *Adiantum* (b) *Ophioglossum* (c) *Lepidodendron* (d) *Marselia*
- Which of the following orders is regarded as connecting link between Gymnosperms and Angiosperm  
(a) Ginkgoales (b) Cycadales (c) Gnetales (d) Coniferales
- Marselia* is a  
(a) Homosporic Pteridophyte (b) Heterosporic Pteridophyte  
(b) Non-Sporic Pteridophyte (d) Seeded
- Adiantum* belongs to class  
(a) Pteropsida (b) Lycopsidea (c) Sphenopsida (d) Psilopsida
- Which one of the following is called Maiden hair tree  
(a) Ginkgo (b) Taxus (c) Ephedra (d) None of the above
- The most advanced order in Gymnosperms  
(a) Cycadales (b) Coniferales (c) Gnetales (d) Taxales
- Ephedra is  
(a) Monoecious (b) Dioecious (c) Usually monoecious occasionally dioecious  
(d) Usually dioecious occasionally monoecious
- Which gymnosperm has leaves like *Adiantum*?  
(a) *Ginkgo* (b) *Gnetum* (c) *Cycas* (d) *A.raucaria*
- Which of them is not woody climber?  
(a) *Gnetum gnemon* (b) *Gnetum montanum* (c) *Gnetum latifolia* (d) *Gnetum ula*

11. Gymnosperm do not have  
(a) Seeds (b) Fruits (c) Leaves (d) None of the above
12. All members of Gymnopsperms are  
(a) Heterosporous (b) Homosporous (c) Both (a) & (b) (d) None of the above
13. Megasporangium is a/an  
(a) Pollen sac (b) Ovule (c) Seed (d) Venter
14. The order Coniferales is represented by  
(a) 5 genera (b) 7 genera (c) 11 genera (d) 13 genera
15. The point of attachment of ovule to the funicle is known as  
(a) Chalaza (b) Raphe (c) Hilum (d) Micropyle
16. Cordaites belongs to class  
(a) Coniferophyta (b) Cycadophyta (c) Charophyta (d) Phaeophyta
17. Which of the following is called living fossil  
(a) *Ephedra* (b) *Pinus* (c) *Cycas* (d) *Ginkgo*
18. Which Gymnosperm order includes all fossil representatives  
(a) Cycadofilicales (b) Cycadales (c) Gnetales (d) Coniferales
19. What is the longest part of earth history  
(a) Pre-Cambian time (b) Palaeozoic era (c) Mesozoic era (d) Cenozoic era
20. The Geological time scale is Subdivided into 4 groups. List them beginning with the largest  
(a) Eons, periods, epoch, eras, (b) Eras, eons, periods, epoch  
(b) Epoch, periods, eras,eons (d) Eons, eras, periods, epochs
21. The transfer of pollen grains from anther to a stigma of different flowers in different plants is known as  
a)self reproduction (b) cross reproduction  
c)self pollination (d)cross pollination
22. Pollen allergy is mainly due to malfunction of  
a) Brain (b)Immune system  
c) Glands (c) Cellular activity
23. Pollination through wind as a vector is known as  
a) Anemophily (b) entomophily

c) Hydrophily

c) None of the above

24. A typical example of self pollination is

a) Wheat

b) Rice

c) Cotton

d) Maize

25. Pollen allergy symptoms most often include:

a) Highly fever

b) runny nose and nasal congestion

c) stomach irritation

d) headache

### Answer Keys

1. (b) 2. (d) 3. (c) 4. (b) 5. (a) 6. (a) 7. (c) 8. (d) 9. (a) 10. (a) 11. (b) 12. (a) 13. (b)  
14. (d) 15. (c) 16. (A) 17. (c) 18. (a) 19. (b) 20. (d) 21. (d) 22. (b) 23. (a) 24. (d) 25. (b)

### FILL IN THE BLANKS

1. *Rhynia* is \_\_\_\_\_ plant.
2. *Rhynia* was described by \_\_\_\_\_
3. Young leaves of *Marsilea* show \_\_\_\_\_ venation.
4. Gymnosperms originated in \_\_\_\_\_
5. The type of polyembryony present in *Ephedra* is \_\_\_\_\_.
6. The archegonial neck of \_\_\_\_\_ is the longest among the Gymnosperms.'
7. A total of \_\_\_\_\_ genera and \_\_\_\_\_ species of Gymnosperms occur in India
8. The female gametophyte is contained within a structure called \_\_\_\_\_
9. Gymnosperm typically have \_\_\_\_\_ integument
10. The age of Gymnosperm is \_\_\_\_\_
11. \_\_\_\_\_ are the longest subdivision of Geological time scale.
12. Paleobotany is the branch of \_\_\_\_\_
13. \_\_\_\_\_ flowers are usually brightly coloured and scented and often secrete nectar.
14. Morphology( size, shape and exine thickness) of \_\_\_\_\_ can be used for identification of plant species.
15. Intine of pollen grain composed \_\_\_\_\_ and protein

### Answer Keys

1. Fossil 2. Kidston and Lang 3. Circinate 4. Palaeozoic era 5. Embryosac polyembryony  
6. Ephedra 7. 16 & 53 8. Archegonium 9. One 10. Mesozoic era  
11. Eons 12. Paleontology or Paleobiology 13. Entomophilous 14. Pollen 15. Lipids