

Anjuman Islam Janjira Degree College of Science
Murud-Janjira, Raigad-402401
Affiliated to University of Mumbai

Class: -F.Y.B.Sc	Subject: - Botany - I
Semester:- II	Course code: -USBO201
Exam Event:- (FH) Summer 2024	Marks: -100
Date: - 20/04/2024	Duration: - 03:00 Hours

- N.B-**
1. All questions are compulsory
 2. Figures to the right indicate full marks
 3. Draw neat labeled diagrams wherever necessary

Q. 1: A. Choose the correct option from the following and rewrite the sentences. 10

1. *Nephrolepis* isplant
a) Heterosporous b) Homosporous c) Bisporous d) Trisporous
- 2.....is most advanced type of stele.
a) Siphonostele b) Protostele c) Atactostele d) Eustele
3.is essential for fertilization in fern.
a) Soil b) Water c) Enzyme d) None of the above
4. Nutrition of prothallus in fern is
a)Autotrophic b) Heterotrophic c) Saprophytic d) Parasitic
5. *Cycas* showstype of pollination.
a) Anemophilous b) Entomophilous c) Hydrophilous d) Chiropterophilous
6. Inverted omega-shaped organization of vascular bundles is seen in.....
a)*Cycas* root b) *Cycas* stem c) *Cycas* leaflet d) *Cycas* rachis
7. Lamina of leaf is also termed as.....
a)Hypopodium b) Epipodium c) Mesopodium d) Hypanthium
8. Phyllode is nothing but a leaf modification meant for photosynthesis is an adaptation
a)Xerophytic b) Hydrophytic c) Mesophytic d) Thallophytic
9. Thick and woody climbers are called as
a)Suckers b) Climbers c) Lianas d) Creepers
10. Parallel venation are found in
a)Monocots b) Dicot stem c) Dicot root d) None of these

Q.1B) Answer the following in one sentence 10

- i. Enlist any two name of most advanced type of stele.
- ii. What is function of indusium
- iii. Which are the two main species of *Cycas* found in India.
- iv. Name any two gymnosperm plants used as timber.
- v. Define recemose inflorescence.

Q.2 Attempt any two of the following: 20

- i. Explain the sexual reproduction in *Nephrolepis*.
- ii. Give an account of external morphology of *Nephrolepis*
- iii. Write a detailed note on alternation of generation of *Nephrolepis*.
- iv. Describe advanced types of steles giving suitable examples.

Q.3 Attempt any two of the following:

20

- i. Write an account of economic importance of gymnosperms.
- ii. Describe the transverse section of young root of *Cycas*.
- iii. Explain the process of pollination, fertilization and formation of seed in *Cycas*
- iv. Explain life cycle and alternation of generation of *Cycas*

Q.4 Attempt any two of the following:

20

- i. Give an account cymose type inflorescence
- ii. Write classification, distinguishing characters, economic importance and floral formula of family Malvaceae
- iii. Explain in detail leaf base (Hypopodium) leaf.
- iv. What are stipules? Describe different types of stipules with the help of diagram and suitable example.

Q.5 Attempt any four from the following:

20

- i. Actinostele
- ii. Systematic position of *Nephrolepis*
- iii. Systematic position of *Cycas*.
- iv. Gymnosperms as a source of medicine
- v. Phyllotaxy
- vi. Distinguish character of Amaryllidaceae.