

(i) Printed Pages : 4 Roll No.

(ii) Questions : 9 Sub. Code :

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Exam. Code :

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Bachelor of Science (FYUP) 2nd Semester

(2056)

BOTANY

Paper : PLANT DIVERSITY-II

Common with B.Sc. Bio-Technology 2nd Sem. FYUP

Time Allowed : Three Hours] [Maximum Marks : 67

Note :- All questions carry equal marks. Question 1 is compulsory. Students will attempt a total of 5 questions; a compulsory question and one question from each unit.

1. (A) Mark the correct answer: 1×8

(i) What is the dominant generation in the life cycle of pteridophytes?

(A) Gametophyte (B) Sporophyte

(C) Zygote (D) Embryo

(ii) Pteridophytes reproduce by means of:

(A) Seeds (B) Spores

(C) Bulbs (D) Flowers

(iii) The vascular tissue in pteridophytes is arranged in:

- (A) Vascular bundles (B) Continuous vessels
(C) Simple tissue pattern (D) None of the above

(iv) Prothallus represents:

- (A) Sporophytic phase in a fern
(B) Gametophytic phase in a fern
(C) Sporophytic phase in a gymnosperm
(D) Gametophytic phase in a gymnosperm

(v) The unutilized prothallial cell in gymnosperm become:

- (A) Endosperm (B) Archegonium
(C) Oogonium (D) Antherozoids

(vi) Which of the following is NOT a gymnosperm?

- (A) Cycas (B) Pinus
(C) Ginkgo (D) Fern

(vii) Which of the following gymnosperms is known as a "living fossil"?

- (A) Cycas (B) Ginkgo
(C) Pinus (D) Cedrus

(viii) Which of the followings is absent in the xylem of gymnosperms?

(A) Trachieds (B) Parenchyma

(C) Fibers (D) Vessels

(B) Fill in the blanks: 1×7

(i) Phloem is without _____ in pteridophytes.

(ii) Sporangium is Produced From _____ in Eusporangiate Ferns.

(iii) In ferns, Leaves During Young Conditions are Called as _____.

(iv) Gymnosperms lack _____ in their xylem.

(v) Flagellated male gametes are present in _____.

(vi) Resin and terpentine are obtained from _____.

(vii) Cycas has two cotyledons but not included in angiosperms because of _____.

UNIT-I

2. Discuss the external and internal structure of Selaginella. 13

3. Discuss the heterospory and seed habit in pteridophytes. 13

UNIT-II

4. Write the detailed life cycle of Pteris. 13

5. Draw the labelled diagram of internal structure of root and shoot of Equisetum. 13

UNIT-III

6. Write about the economic importance of Gymnosperms. 13
7. Write the internal structure of normal and coralloid roots of Cycas. 13

UNIT-IV

8. Discuss the reproduction in Ephedra. 13
9. Draw the TS, TLS and RLS of Pinus stem. 13