

7203

M.Sc. IInd Semester EXAMINATION, 2018

BOTANY

Paper – III

(Structural & Reproductive Plant Biology)

Time: Three Hours

Maximum Marks: 80

PART – A (खण्ड – अ)

[Marks: 20]

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर 50 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – B (खण्ड – ब)

[Marks: 40]

Answer five questions (250 words each).

Selecting one from each unit. All questions carry equal marks.

प्रत्येक इकाई से एक-एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए।

प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – C (खण्ड – स)

[Marks: 20]

Answer any two questions (500 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 500 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – A

1. I. Define root hairs.
- II. Define secretory structures.
- III. Define intrafascicular cambium.
- IV. What are the lenticels?
- V. What do you understand by ubisch bodies?
- VI. Define mezogamy.
- VII. What do you understand by the cleistogamy?
- VIII. Define double fertilization in angiosperms.
- IX. What is the recurrent apomixis?
- X. Define metaxenia.

PART – B

UNIT –I

2. What in detail on organisation of meristems?
3. Write short notes on following:-
 - (a) Parenchyma
 - (b) Sclerenchyma

UNIT –II

4. Discuss the anomalous secondary growth in Dracaena stem with well labeled diagram.

OR

5. Write short notes on-
 - (a) Foliar stamens.
 - (b) Annual rings

UNIT –III

6. Describe megasporogenesis with suitable diagrams.

7. Write short notes on-
- (a) Tapetum
 - (b) Types of placentation in angiosperm

UNIT –IV

8. Discuss in brief types of ovules in angiosperms.
9. Write short notes on followings:-
- (a) In vitro fertilization
 - (b) Self in compatibility

UNIT –V

10. Define polyembryony. Give a brief account on different types of polyembryony with its significance.
11. Write short notes on:-
- (a) Mono sporic types of embryo-sac
 - (b) Structure and function of suspensar.

PART – C

12. Write in detail on organization of root apical meristem [RAM].
13. Discuss the anomalous secondary growth in the stem of Boerhaavia with well labelled diagram.
14. Write short notes on:-
- (a) Pollen embryos
 - (b) Micro sporogenesis.
15. Write in detail on types of embryo sacs found in angiosperms.
16. Define apomixis. Give a brief account of different types of apomixis with suitable examples.