

7203

M.Sc. IInd SEMESTER EXAMINATION, 2019

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 (300 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – A

- Q.1 (i) Define periderm.
- (ii) Define lateral roots.
- (iii) What is the Phyllotaxy?
- (iv) Define intrafascicular cambium.
- (v) Define chalazogamy.
- (vi) What do you understand by tapetum?
- (vii) What is the function of suspensor?
- (viii) Define double fertilization in angiosperm.
- (ix) What is the Non-recurrent Apomixis?
- (x) Define xenia.

PART – B

UNIT – I

- Q.2 Write in detail on Shoot Apical Meristems [SAM].
- Q.3 Write short notes on the following -
- (a) Collenchyma
- (b) Phloem fibre

UNIT – II

- Q.4 Discuss the anomalous secondary growth in Bignonia stem with well labelled diagram.
- Q.5 Write short notes on the following -
- (a) Open Carpels
- (b) Primitive living angiosperms

UNIT – III

Q.6 Describe Microsporogenesis with suitable diagrams.

Q.7 Describe about the different types of placentation and its evolution.

UNIT – IV

Q.8 Discuss in brief the organization of the embryo sac.

Q.9 Write short notes on the followings-

- (a) Pollination mechanisms
- (b) In Vitro Fertilization

UNIT – V

Q.10 What is apomixis? Give a brief account of different types of apomixis with suitable examples.

Q.11 Write short notes on the following -

- (a) Endosperm haustoria
- (b) Embryogenic types

PART – C

Q.12 Write short notes on the following -

- (a) Sclerenchyma
- (b) Secretory Structure

Q.13 Discuss the anomalous secondary growth in the stem of Achyranthes with well labelled diagram.

Q.14 What is anther tapetum? Describe its types, structure and functions.

Q.15 Write in detail on types of ovules found in angiosperms.

Q.16 Define Polyembryony. Give a detailed account on different types of polyembryony with significance.
