

D 113891

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Name.....

Reg. No.....

**FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2024**

Botany

BOT 1B 01—ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY
(2019—2023 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A (Short Answer Type)*All questions can be answered.**Each question carries 2 marks.**(Ceiling 20 marks)*

1. What is bicollateral vascular bundle ?
2. What are Raphides ?
3. Differentiate between lateral meristem and intercalary meristem.
4. Comment on exine ornamentation in pollen.
5. Write the opposition theory of cell wall growth.
6. Name any *two* plants containing alkaloids.
7. Comment on the use of hydathodes and lenticels.
8. What are Integuments ?
9. Comment on non-nitrogenous waste materials in plants.
10. Name any *two* Indian embryologists.
11. What is Phellogen ?
12. What is “yellow shower” ?

Turn over

Section B (Paragraph/ Problem Type)

All questions can be answered.

Each question carries 5 marks.

(Ceiling 30 marks)

13. Comment on reserve food materials in plants.
14. Explain the primary structure of monocot stem.
15. Describe Histogen theory.
16. With the help of a labelled diagram describe a mature anther.
17. Write a note on character and classification of meristem.
18. Explain double fertilization and triple fusion.
19. Comment on the economic and taxonomic importance of pollen.

Section C (Essay Type)

*Answer any **one** of the following questions.*

The question carries 10 marks.

20. Write an essay on anomalous secondary thickening in Boerhavia.
21. Describe the development of tetrasporic embryo sac.

(1 × 10 = 10 marks)

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(2019—2023 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

*Answer all questions.
Each question carries 2 marks.
Ceiling : 20 Marks.*

1. What is Cystolyth ?
2. Define apical cell theory.
3. Differentiate schizogenous and lysogenous ducts.
4. Describe collateral vascular bundle.
5. What is meant by lenticel ?
6. Differentiate articulated and non-articulate latificiferers.
7. Define raphides.
8. Write a note a starch grain.
9. What is double fertilization.
10. Describe embryo sac.
11. What is meant by pollen allergy ?
12. Write a note on barriers of fertilization.

Turn over

Section B

*Answer all questions.
Each question carries 5 marks.
Ceiling : 30 Marks.*

13. Explain meristematic tissues.
14. Write a note on vascular bundle.
15. Write an account on reserve food materials.
16. Write an account on secretory tissues.
17. Explain pollen morphology.
18. Write an account on microsporogenesis.
19. Describe dicot embryo in *Cypselia*.

Section C

*Answer any one question
The question carries 10 marks.*

20. Write an account on structure and functions of complex tissues.
21. Give a comparative account on different types of embryo sac.

(1 × 10 = 10 marks)

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**FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2022**

Botany

BOT 1B 01—ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY
(2019—2022 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A*Answer all questions, each question carries 2 marks - Ceiling : 20 marks.*

1. Define Raphides.
2. Explain histogen theory.
3. Describe Hydathodes.
4. Define protoderm.
5. Differentiate heart wood and sap wood.
6. Define nectaries.
7. Define aleurone grains.
8. Write a note on fats and oils.
9. Give an account on polygonum types of embryosac.
10. Write a note on pollen wall.
11. What is meant by pollen allergy.
12. Describe monocot embryo.

Section B*Answer all questions, each question carries 5 marks - Ceiling : 30 marks.*

13. Write a note on organization of root apex.
14. Explain extra stelar secondary thickening in dicot stem.

Turn over

15. Write an account on vascular bundles.
16. Write an account on meristematic tissues.
17. Give an account on economic and taxonomic importance of palynology.
18. Write an account on Indian embryologist.
19. Give a comparative account on monocot and dicot embryo.

Section C

*Answer any **one** question, the question carries 10 marks, $1 \times 10 = 10$ marks.*

20. Explain anomalous secondary growth in *Boerhaavia*.
21. Write a detailed account on structure and functions of simple tissues.

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FIRST SEMESTER (CBCSS-UG) DEGREE EXAMINATION, NOVEMBER 2021

Botany

BOT 1B 01—ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY

(2019–2020 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A*Answer all questions.**Each question carries 2 marks—Ceiling 20 marks.*

1. Write a note on Aleurone grains.
2. What is meant by periderm ?
3. Define Nectaries.
4. What is lysigenous ducts ?
5. What is Apical cell theory ?
6. Define Druses.
7. What is meant by vascular rays ?
8. Differentiate articulated and non-articulated laticifers.
9. Describe embryosac.
10. Define pollen wall.
11. What is meant by double fertilization ?
12. Write a note on pollen allergy.

Section B*Answer all questions.**Each question carries 5 marks – Ceiling: 30 marks.*

13. Write an account on secretory tissues.
14. Explain anomalous secondary growth in *Bignonia*.
15. Give an account on meristematic tissues.
16. Explain stelar secondary growth.

Turn over

17. Write an account on microsporogenesis.
18. Explain the embryo structure of *Cypselia*.
19. Write an account on development of female gametophyte.

Section C

*Answer any **one** question.
The question carries 10 marks.*

20. Write an account on complex tissues with detailed structure and function.
21. Explain pollination and give an account on barriers of fertilization.

(1 × 10 = 10 marks)

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**FIRST SEMESTER (CBCSS-UG) DEGREE EXAMINATION
NOVEMBER 2021**

Botany

BOT 1B 01—ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY
(2021 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A*Answer atleast **eight** questions.**Each question carries 3 marks.**All questions can be attended.**Overall ceiling 24.*

1. Explain Korper-Karper theory.
2. What is callose tissue ? What is its function ?
3. In woody plants, the central region appears dark. Why is it so ?
4. Mention the characteristic features of meristems.
5. What are tyloses ? What is its anatomical role in plants ?
6. Define palynology.
7. In grasses, the leaf surface is rough. Explain the reason.
8. List out the name of a great Indian embryologist and his/her major contribution to the field of embryology.
9. Bring out the structure of pollen wall.
10. Explain promeristem.
11. Distinguish ring porous wood from diffuse porous wood of angiosperms.
12. Describe the structure of a monocot embryo.

(8 × 3 = 24 marks)

Turn over

Section B

Answer atleast five questions.

Each question carries 5 marks.

All questions can be attended.

Overall ceiling 25.

13. What are annual rings ? How are they formed ?
14. Bring out the organization of root apices in dicots.
15. Explain the economic and taxonomic importance of palynology.
16. With suitable diagrams, explain the anatomical features of laticiferous tissue. Add notes on the economically important latex producing plants.
17. Explain the major events that occurred during megasporogenesis . Add notes on triple fusion.
18. Write notes on shape of pollen grains and apertural morphoforms.
19. With suitable diagrams, explain the structure, occurrence and functions of simple tissues you have studied.

(5 × 5 = 25 marks)

Section C

Answer any one question.

Each question carries 11 marks.

20. With the help of labelled diagrams, describe the anomalous secondary growth in *Dracaena*.
21. Describe monosporic type of embryosac development in *Polygonum* with suitable diagrams.

(1 × 11 = 11 marks)