



31323

(NEP)

B.Sc. III Semester Degree Examination, February/March - 2023

BOTANY

Plant Anatomy and Development Biology

Time : 3 Hours

Maximum Marks : 60

Instructions to Candidates :

1. Part - I : All questions are compulsory.
2. Part - II : Answer any FIVE full questions.

PART - I

I. Answer the following.

(10×1=10)

1. What is Perisperm?
2. What is integumentary tapetum?
3. What is polysiphonous condition?
4. What is leaf primordium?
5. Define organogenesis.
6. What is eustelic condition?
7. Differentiate between exarch and endarch condition.
8. What are bulliform cells?
9. What is periderm?
10. Differentiate between Spring wood and Autumn wood.

PART - II

II. Answer any FIVE full questions.

(5×10=50)

11. a) Tapetum and its functions.
b) Nemecc phenomena.
12. a) L.S. of Anatropous ovule.
b) Advantages and disadvantages of self pollination.

[P.T.O.]



13. a) Explain structure and functions of RAM (Root apical meristem).
b) Explain ABC flower model with the help of diagrammatic representation.

 14. a) Explain dicot leaf anatomy.
b) Explain classification of meristamatic tissue based on different basis.

 15. a) Explain application of anatomy in forensic and pharmacognosy
b) Types of vascular bundles.'

 16. Explain Stelar cambium activity in normal secondary growth in dicot stem.
 17. Explain cruciferae type of embryo development.
 18. Explain dicot stem anatomy with diagram.
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27324(Old)

B.Sc. III Semester Degree Examination, February/March - 2023

BOTANY (OLD)

Morphology Taxonomy of Angiosperms and Economic Botany

Paper: 1.3

Time : 3 Hours

Maximum Marks : 60

Instructions to Candidates:

- 1) Part - A is compulsory.
- 2) Part - B Answer any **five** questions. Labelled diagrams will enhance the value of answers.

PART - A

Answer the following questions.

(10×1=10)

1. What are prop-roots? Give example.
2. What are insectivorous plants? Give example.
3. What are phylloclades? Give example.
4. What is pome? Draw diagram.
5. Differentiate between Raceme and Cyme.
6. Write the botanical name of oil yielding plants? Give examples.
7. Write the botanical name of Narcotic plants and its uses.
8. Write the salient features of Liliaceae.
9. Name the Ceasalpinaceae? Give any two examples.
10. Name the botanical name of two important lemon.

PART - B

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

(5×10=50)

1. a) Describe the adventitious root modification. **(5)**
b) Describe the root modification for mechanical support. **(5)**
2. a) Describe the subterranean stem. **(5)**
b) Differentiate between phyllode and cladode. **(5)**

[P.T.O.]



(2)

27324(Old)

3. a) Draw and describe leaf parts. (5)
b) Describe the leaf tendrils? Draw and Label the two examples. (5)
4. a) Describe the Racemose inflorescence. (5)
b) What is placentation? Draw and label. (5)
5. a) Write about botanical garden and its importance. (5)
b) Write the ICBN principles. (5)
6. a) Write the salient features of family Solanaceae. (5)
b) Write the salient features of Cruciferae. (5)
7. Write the salient features of Liliaceae? Give the three examples with botanical name and its uses. (10)
8. Write the salient features of Asteraceae? Give any three examples with botanical name and uses. (10)
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B.Sc. III Semester Degree Examination, February/March 2022
BOTANY

**Paper – 3.1 : Morphology, Taxonomy of Angiosperms and
Economic Botany (New)**

Time : 3 Hours

Max. Marks : 60

- Instructions :** 1) Part – A is **compulsory**.
2) Part – B, answer **any five** questions.
3) Labelled diagram will enhance the value of answer.

PART – A

- I. Answer the following questions. **(10×1=10)**
- 1) What are assimilatory roots ? Give example.
 - 2) What is epipetalous condition ? Give example.
 - 3) What are true fruits ? Give example.
 - 4) What are multifoliate compound leaves ? Give example.
 - 5) What are tetradynamous stamens ?
 - 6) What are petaloid bracts ? Give example.
 - 7) Write the botanical name of coconut. Mention its family.
 - 8) What are narcotic plants ? Give example.
 - 9) Define binomial nomenclature. Who proposed it ?
 - 10) What is phylloclade ?

PART – B

- II. Answer **any five** of the following. **(5×10=50)**
- 1) a) Explain tap root modification for storage of food with example. **5**
b) Explain underground modification of stem. **5**
 - 2) a) What are stipules ? Explain kinds of stipules. **6**
b) Explain the different positions of floral leaves on the thalamus. **4**
 - 3) a) Write the objectives of botanical survey of India. **5**
b) Explain the special types of inflorescence with examples. **5**

P.T.O.



- 4) a) Write the outline classification of angiosperms according to Bentham and Hooker. 5
 b) Explain the types of Placentation. 5
- 5) a) Assign the following plants to their respective families with botanical name and uses (i) Chilli (ii) Green gram (iii) Watermelon (iv) Coriander. 6
 b) Write short notes on : (i) Gynoecium of Lamiaceae (ii) Androecium of Malvaceae. 4
- 6) Write the salient features of sub family Papilionaceae. Give any three examples with botanical name and uses. 10
- 7) Write the general characters of onion family giving three examples with botanical name and uses. 10
- 8) Enumerate the characters of family Euphorbiaceae giving three examples with botanical name and uses. 10

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11325(Old)

B.Sc III Semester Degree Examination, Oct./Nov. - 2019

BOTANY

**DIVERSITY OF VASCULAR PLANTS
(PTERIDOPHYTES, GYMNOSPERMS AND
ANGIOSPERMS, MORPHOLOGY)**

PAPER- III

(Old)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Answer **all** questions from Part - I.
2. Answer any **Four** questions from Part - II.
3. Answer any **six** questions from Part - III.

PART - I

I. Answer the following questions.

(8×2=16)

1. What are multiple fruits? Give example.
2. What is stilt root? Give example.
3. Differentiate Gamopetalous and polypetalous.
4. What are Synandrous stemens? Give example.
5. What are adventitious roots? Give example.
6. What are sucking roots? Mention its function.
7. What is Phyllode? Mention its function.
8. What is Siphonostele? Give example.

PART - II

II. Answer any **four** of the following :

(4×4=16)

9. What is Placentation? Explain with example.
10. Explain the special type of inflorescence with example.

[P.T.O.]



11. Explain Tap root modification for storage of food with example.
12. Explain the anatomy of Cyas leaf let.
13. Describe the spore bearing structure of Adiantum.
14. What are fossiles? Explain its types.

PART - III

III. Answer any **six** of the following.

(6×8=48)

15. Describe L-S of Selaginella Strobilus.
 16. Explain different types of attachment of the filament to anther with example.
 17. Explain Cycas corollaid root T - S with diagram.
 18. Explain Male and Female strobilli of Gnetum.
 19. Explain the structure of Mature gametophyte of Lycopodium.
 20. Explain stelar evolution in pteridophytes.
 21. Describe fleshy fruit with example.
 22. Describe different forms of Gamopetalous corolla.
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B.Sc. III Semester Degree Examination, Oct./Nov. - 2019

BOTANY

Morphology, Taxonomy of Angiosperms and Economic Botany

PAPER : 1.3

(New)

Time : 3 Hours

Maximum Marks : 60

Instructions to Candidates:

1. Part A is **compulsory**.
2. Part B answer any **five** questions.
3. Labelled diagram will enhance the value of answer.

PART - A

Answer the following questions.

(10×1=10)

1. What are respiratory roots? Give example.
2. What is epiphyllous condition? Give example.
3. What are spurious fruits? Give example.
4. What are multifoliate compound leaves? Give example.
5. What are lianas? Give example.
6. What is didynamous condition? Give example.
7. Differentiate between helicoid and scorpid cyme.
8. Write the Botanical name of Tea. Mention its family and uses.
9. What are foliaceous stipules? Give example.
10. What is phylogenetic system of classification.

[P.T.O.]

**PART - B**Answer any **five** of the following :**(5×10=50)**

1. a) Describe adventitious root modification for storage of food. (6)
b) Explain subaerial stem modification. (4)
 2. a) Explain types of venation. (6)
b) Explain shapes of corolla. (4)
 3. a) Explain any two special types of inflorescence. (5)
b) Explain spices yielding plants. (5)
 4. a) Explain fleshy fruits. (5)
b) Explain types of placentations. (5)
 5. a) Explain importances of Botanical garden. (5)
b) Explain rules of ICBN. (5)
 6. a) Write salient features of family Brassicaceae. (5)
b) Write salient features of family palmae. (5)
 7. Write the salient features of Compositae. Give any three examples with Botanical name and uses. (10)
 8. Write the salient features of Amaranthaceae. Give any three examples with Botanical name and uses. (10)
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11325

B.Sc. III Semester Degree Examination, Oct./Nov. - 2018

BOTANY

Diversity of Vascular Plants

Pteridophytes, Gymnosperms and Angiosperm Morphology

Paper - III

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Answer **ALL** questions from part- I
2. Answer any **TEN** questions from part-II
3. Labelled diagram will enhance value of answer.

PART - I

I. Answer the following questions.

(8×2=16)

1. Explain Monochasial inflorescence with example.
2. What are Trabeculae? Mention its function.
3. Define siphonostele give example.
4. What are didynamous and Tetradyamous Androecium?
5. Differentiate between superior and inferior ovary.
6. What is coal balls?
7. What are fibrous roots? Give example.
8. Explain structure and function of ligule with example.

[P.T.O.]

**PART - II****II. Answer any FOUR of the following questions.****(4×4=16)**

9. Explain Anatomy of Rhynia stem with diagram.
10. Write a note on Insectivorous plants.
11. Describe L.S of selaginella strobilus.
12. Explain Anatomy of Pinus leaf.
13. What is Aestivation? Explain its types with diagram.
14. Write a note on Heterospory and seed habit.

PART - III**III. Answer any SIX of the following questions.****(6×8=48)**

15. Explain Anatomy of cycas leaf let with diagram.
 16. Define stipule add a note on its types with example.
 17. What are simple dry fruits? Explain dry dehiscent and schizocarpic fruits.
 18. Explain Aerial and Sub-aerial modification of stem with example.
 19. Explain Anatomy of Marsilea Rhizome with diagram.
 20. Describe T.S of Equisetum Rhizome.
 21. Explain Anatomy and morphology structure of gnetum male and Female cone.
 22. Define placentation explain the types with diagram and example.
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