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AC-234544

**M.Sc. (Semester-III)
Examination, Dec.-Jan. (2025-26)**

BOTANY

(Plant Anatomy and Economic Botany)

Time Allowed : Three Hours

Maximum Marks : 70

Note : This question paper is divided into **four** sections. Attempt questions of **all four** sections as per direction. Distribution of marks is given in each section.

SECTION-A

(Objective Type Questions)

1. Attempt any 10 questions out of 12 given below :

[10×1=10]

Multiple Choice Questions :

(i) Millet is a type of :

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(1)

[P.T.O.]

- (a) Legumes
 - (b) Fibre yielding plants
 - (c) Cereal
 - (d) Oil yielding plants
- (ii) Rubber is obtained from :
- (a) Latex
 - (b) Gum
 - (c) Fat
 - (d) Fibre
- (iii) Example of a Beverage plant is :
- (a) Tea
 - (b) Cocoa
 - (c) Coffee
 - (d) All of the above
- (iv) The Cambium Forming Cork is known as :
- (a) Fascicular Cambium

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- (b) Phellogen
 - (c) Phellem
 - (d) None of the above
- (v) The Annual Rings are formed due to :
- (a) Primary Xylem
 - (b) Phloem Rays
 - (c) Cork Cambium
 - (d) Secondary Xylem
- (vi) Petro plants yield :
- (a) Hydrocarbons
 - (b) Latex
 - (c) Resin
 - (d) Sugars

Fill in the blanks :

- (vii)cambium produces secondary xylem and phloem.

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[P.T.O.]



- (viii) Secondary growths is absent in most.....plants.
- (ix) The permanent tissues arises from.....
- (x) The wood formed during spring season is.....
- (xi) Tobacco belongs to.....family.
- (xii) The root cap is produced by.....

SECTION-B

(Very Short Answer Type Questions)

2. Attempt any five questions out of eight given below :
(Word limit 25-30 words) [5×2=10]

- (i) Manoxylic wood
- (ii) Seed dormancy factors
- (iii) Medicinal importance of *Vinca rosea*
- (iv) Annual Rings
- (v) Difference between Xylem and Phloem.

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- (vi) Use and source of Taxol
- (vii) Define Vascular Bundle.
- (viii) Centre of origin of Plants

SECTION-C

(Short Answer Type Questions)

Note: Attempt any five questions. Each question carries 4 marks. (Word limit : 250 words) [5×4=20]

3. (i) Name, Botanical Name, Family and Part used of five Fibre yielding plants.
- (ii) Write a note on structure and function of Stomata.
- (iii) Describe the structure of Dicot seed.
- (iv) Write a brief account on the factors affecting the process of Seed germination.
- (v) Write a note on Fibres and their different sources.

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[P.T.O.]



- (vi) Give importance of Plant anatomy in Taxonomical studies.
- (vii) Write about the Medicinal plants used to Cure fever, by the Tribal communities of Chhattisgarh.
- (viii) What are Secretory Ducts and Laticifers ?

SECTION-D

(Long Answer Type Questions)

4. Attempt any three questions out of five given below :
(Word limit 500-700 words) [3×10=30]

- (i) Write an elaborate note on the Centres of Origin and Economic importance of cultivated plants.
- (ii) Write an essay on Energy Plantations and their future relevance with special reference to India.
- (iii) Explain the process of secondary growth in Dicots.

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- (iv) Discuss the Phylogeny and Evolution of Stomata.
- (v) Explain the structure and types of Secretory tissues and their Ecological significance.

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