

**2204**  
**SECOND YEAR B.Sc. Botany**  
**PAPER II:**  
**ANATOMY OF ANGIOSPERMS,**  
**ECONOMIC BOTANY AND ETHNOBOTANY**

**Unit-1**

Plant anatomy : Introduction, organization of meristems; theories related to their organization; cell wall gross microscopic structure and chemistry.

**-10 hours**

**Unit-2**

Tissue and tissue systems; Parenchyma, Collenchyma, Sclerenchyma, Xylem, Phloem, Secretory structures and periderm.

**-10 hours**

**Unit-3**

Primary and Secondary Structure : Structure of root, stem and leaf. Primary and secondary anomalous structure with special reference to *Aristolochia*, *Salvadora*, *Bignonia*, *Achyranthes*, *Amaranthus*, *Boerhaavia*, *Mirabilis*, *Chenopodium* *Dracaena*, *Tinospora*.

**-10 hours**

**Unit-4**

Study the economic botany of the following :

Cereals : *Triticum*, *Zea*

Pulses : *Glycine max*, *Cajanus cajan*

Fibres : Classification; *Gossypium*, *Crotalaria*, *Corchorus*;  
artificial fibres.

Wood : Classification, mechanical properties; *Shorea*,  
*Tectona*, *Pinus*, *Cedrus*.

Paper : Raw materials and manufacture.

Sugar : Sugarcane, Beet.

**-10 hours**

**Unit-5**

Study of economic uses of the following :

Medicinal Plants : *Rauwolfia*, *Datura*, *Cinchona*, *Papaver*.

Beverages : Alcoholic; Non-alcoholic: tea and coffee.

Spices and : *Coriandrum*, *Cuminum*, *Ferula*, *Curcuma*,

Condiments *Trigonella*, *Elettaria*, *Capsicum*, *Piper*, *Zingiber*.

Oil : *Arachis*, *Cocos*, *Helianthus*.

Ethnobotany : Introduction; Aims and Objectives; Study of important plants of various groups from Ethnobotanical point of view as food, fodder and Medicine with special reference to Rajasthan.

**-10 hours**

**Note:**

The paper setter is required to set questions of 3 types contained in 3 Sections (**Section A**- 10 questions, **Section B**- 10 questions and **Section C**- 4 questions) from the 5 units of each paper. There will be 10 questions in **Section A** which will be asked from all the 5 units, i.e., 2 questions from each unit. These questions have to be answered in one word or a few words only. Each question will be of half mark. All the questions in **Section A** are compulsory. In **Section B**, 10 questions will be set from the 5 units, i.e., 2 questions from each unit. Students are required to attempt at least 1 question from each unit. Each question will carry 5 marks. The answers of each question should be given in about 250 words. In **Section C** there will be 4 descriptive type questions set from all the 5 units, not more than 1 question from each unit. These questions may also have sub-divisions. The students are required to answer 2 questions, each in approximately 500 words. Each question will carry 10 marks.

In short, pattern of question paper and distribution of marks for UG classes will be as under

- **Section A:** 10 questions, 2 questions from each unit, short answer, all questions compulsory. Total marks : **05**
- **Section B:** 10 questions, 2 question from each unit, 5 question to be attempted, at least 1 from each unit, answer approximately in 250 words. Total marks : **25**
- **Section C:** 04 questions (question may have sub-division), not more than 1 question from each unit, descriptive type, answer in about 500 words, 2 questions to be attempted. Total marks : **20**