

PG CBCS
M.SC. Semester-II Examination, 2021
BOTANY
PAPER: BOT 203
PLANT ANATOMY & PHARMACOGNOSY

Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

UNIT- BOT 203.1

Answer any TWO questions of the following: 10X2=20

1. What is meant by nodal anatomy? What are p-Proteins? Mention their roles. How nodal anatomy helps in resolving the taxonomic debates? 2+2+2+4
2. Describe different types of stomata with diagrams according to Metchalfe and Chalk. Discuss with examples about different types of secretory tissues found in higher plants. 2+2+6
3. Mention the source, type and uses of fibres obtained from jute, cotton and coir. Discuss the structure of laticiferous gland found in *Hevea brasiliensis*. 6+4
4. Write down the ultrastructure of cell wall. Mention the chemical nature of its different components. Give detailed structure of a salt gland. 4+3+3

UNIT- BOT 203.2

Answer any TWO questions from the following: 10X2=20

1. Define crude drug. Briefly discuss acetate mevalonate pathway. Explain the methods of biological evaluation of drugs. 2+4+4
2. Write down the method of cultivation, chemical constituents and medicinal uses of *Rauwolfia serpentina*. Briefly discuss the mechanism action of reserpine. (2+2+2)+4
3. What is adulteration? Explain it in detail giving at least three suitable examples. Mention different ways of detection of adulterations? 2+5+3
4. What are secondary metabolites? Give an account of phytochemical investigations for secondary metabolites. What are glycosides? 2+6+2
