

QP CODE: 113330

Reg. No:.....

**First Semester M.Pharm Degree Regular/Supplementary Examinations  
April 2023**

**M.Pharm (Pharmacognosy)**

**Paper III – Phytochemistry (MPG 103T)**

**(Common for 2017 and 2019 Scheme)**

**Time: 3 Hours**

**Total Marks: 75**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

**Essays**

**(3x10=30)**

1. What is biosynthesis. Discuss in detail about the general biosynthetic pathways of steroids and terpenoids
2. Describe on microwave assisted extraction and supercritical fluid extraction
3. Describe on application of HPTLC in the characterization of herbal extracts

**Short Notes**

**(9x5=45)**

4. Soxhlet extraction
5. Protocol design for lead molecules
6. UV, IR, MS data of menthol and carvone
7. Selection and optimization of lead compounds from Artemisia
8. GC-MS application in pharmacognosy
9. Tracer technique
10. Coumarins
11. Product discovery process and drug registration
12. Sennosides

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