

QP CODE: 113330

Reg. No:.....

**First Semester M.Pharm Degree Regular/Supplementary Examinations  
March 2020  
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. Explain phytochemical finger printing with suitable examples.
2. Discuss the drug discovery and development of Artemesin.
3. Describe on the methods of separation of phyto-constituents by CCCET and SCFE techniques

**Short Notes** **(9x5=45)**

4. HPTLC applications in the characterization of herbal extracts.
5. Structure elucidation of Carvone.
6. Structure elucidation of luteolin by spectroscopic techniques like UV, IR, MS and NMR.
7. Isolation and characterization of ephedrine.
8. Biosynthesis and importance of digitoxin.
9. Phases of clinical trials.
10. Methods of fractionation of phyto-constituents.
11. Structure elucidation of nicotine.
12. Importance of guggulostерone and withanolides in herbal industries

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