



PAPER D-411474

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Subject Code: MPG103T

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MPHARM
(SEM I) THEORY EXAMINATION 2021-22
PHYTOCHEMISTRY

Time: 3 Hours**Total Marks: 75****Note: 1. Attempt all Sections. If require any missing data; then choose suitably.**

SECTION A

1. Attempt all questions in brief. 10 x 2 = 20

a.	Draw the chemical structure of Caffeine and Carvone.
b.	Mention the characterization and purification technique for coumarins.
c.	Write importance of Quinine and Vinca.
d.	Define Lead compounds.
e.	Write the principle of Microwave Assisted Extraction.
f.	What do you mean by Supercritical Fluid Extraction?
g.	Describe the principle of HPTLC.
h.	How will you elucidate the structure of a phytoconstituent?
i.	What is the role of UV in characterization of Phyto molecules?
j.	Write the principle of extraction.

SECTION B

2. Attempt any two parts of the following: 2 x 10 = 20

a.	Discuss history of herbs as source of Drugs and drug discovery.
b.	Discuss Flash column chromatography.
c.	Discuss various methods of Fractionation.

SECTION C

3. Attempt any five parts of the following: 7 x 5 = 35

a.	Explain Biosynthesis of any two of the following: (i) Taxol (ii) Berberine (iii) Ephedrine
b.	Explain the structure elucidation of any two of the following: (i) Menthol (ii) Citral (iii) Luteolin
c.	Explain the method for isolation, purification and characterization of Digitoxin OR Glycyrrhizin.
d.	Discuss the lead structure selection process OR Significance of phytoconstituents in drug discovery.
e.	Write various applications of HPTLC.
f.	Explain the significance of LCMS/GCMS in characterization of herbal extracts.
g.	Discuss the structure elucidation of Nicotine and Caffeine by spectroscopic techniques like UV, IR, MS, NMR (1H, 13C).