

FACULTY OF PHARMACY**M. Pharmacy (Pharmaceutical Chemistry) I-Semester (PCI) (Main & Backlog)
Examination, 2020****Subject: Chemistry of Natural products****Time: 3 Hrs****Max. Marks: 75****Note: Answer any five questions. All questions carry equal marks.**

- 1 a) Define Alkaloids and write the general methods to determine the structure of Alkaloids.
b) Write the special isoprene rule in terpenoids. (8+7)
- 2 Write the structural elucidation of any two drugs. (8+7)
- 3 Write how the natural products acts as a leads in the following classes of drugs
i) Antimalarial drugs and analogues
ii) Cardiovascular drugs (8+7)
- 4 Write the structural characterization of following compnds using IR, ^1H NMR, C^{13}NMR and Mass spectral data (Write approximate values) 5x3=15
i) Quercetin
ii) Vitamin D
iii) Digoxin
iv) Camphor
v) Pencillin G
- 5 Write down the active constituents present in the following crude drugs with Structures (minimum three from each crude drug)
i) Curcuma longa
ii) Pterocarpus marsupium
iii) Gymnema sylvestre
iv) Phyllanthus niruri
v) Swertia chirata (5x3=15)
- 6 a) Write a note on chemistry and physiological significance of following vitamins
i) Vitamin A
ii) Vitamin B 12
iii) Vitamin C (3x3=9)
b) Write the structural elucidation of quercetin 6
- 7 Discuss abt
a) Chemistry of sapogenins and cardiac glycosides (9+6)
b) Gene therapy
- 8 Write the structural elucidation of (8+7)
i) Citral
ii) Carotenoids
