

FACULTY OF PHARMACY**M. Pharmacy (Pharmaceutical Chemistry) I-Semester (PCI) (Supple.) Examination,
August 2018****Subject: Chemistry of Natural Products****Time: 3 Hrs****Max. Marks: 75****Note: Answer any five questions. All questions carry equal marks.**

- 1 Discuss the structural elucidation of morphine (OR) reserpine. (15)
- 2 Discuss how natural products acted as leads while designing the drugs?
Explain by taking any three categories of drugs.
- 3 (a) What are flavanoids? Discuss the structural elucidation of quercetin.
(b) Discuss the chemistry and mechanism of contraceptive steroids. (7+8)
- 4 What are isoprene and special isoprene rules? Discuss the structural elucidation
of any one monoterpenoid and one diterpenoid. (15)
- 5 Write the approximate spectral values for the following natural drugs in IR,
¹HNMR and ¹³CNMR spectra. (5x3)
 - (a) Morphine
 - (b) Any one Digitalis glycoside
 - (c) Benzyl penicillin
 - (d) Quercetin
 - (e) Vitamin – D
- 6 Write a note on : (3x5)
 - (a) Recombinant DNA technology and drug discovery
 - (b) Chemistry of Vitamin A
 - (c) Stereochemistry and nomenclature of steroids
- 7 (a) Explain how natural products acted as leads in the discovery of new β -lactam
antibiotics and macrolide antibiotics.
(b) Discuss the structural elucidation of Ephedrine. (7+8)
- 8 (a) List the active constituents that are isolated from the following crude
drugs with their medicinal use
 - (i) Pterocarpus marsupium
 - (ii) Swertia chirata
 - (iii) Phyllanthus niruri
 - (iv) Curcuma longa Linn (8)
(b) Write a note on Gene therapy. (7)
