

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: M.PHARMA
BRANCH: PHARMACY

SEMESTER : I
SESSION : MO/19

SUBJECT: MPC104T CHEMISTRY OF NATURAL PRODUCTS

TIME:3:00 HOURS

FULL MARKS: 75

INSTRUCTIONS:

1. The question paper contains 7 questions each of 15 marks and total 105 marks.
 2. Candidates may attempt any 5 questions maximum of 75 marks.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) How does morphine serve as lead in modern medicine? [7]
Q.1(b) Give the natural product lead compounds as antimalarials. [8]
- Q.2(a) Justify β -lactam antibiotics as natural lead. [7]
Q.2(b) Write down the structure elucidation of ephedrine and vitamin A. [8]
- Q.3(a) Elucidate the structure of ergot alkaloids in general. [7]
Q.3(b) Give the SAR of Taxol and Quercitin. [8]
- Q.4(a) Define the word Diabetes. Discuss the causes and various complications of Diabetes. [7]
Q.4(b) Explain the mechanism of action, extraction/ isolation procedure and structure of two diabetic drugs. [8]
- Q.5(a) Write down the classification and isoprene rule of terpenoid. [7]
Q.5(b) Give the source and structure elucidation of any mono, di, tri terpenoid and carotenoid drugs. [8]
- Q.6(a) Explain in detail the mechanism and applications of hybridoma technology, Gene therapy and Oligonucleotide therapy. [7]
Q.6(b) Write the application various NMR techniques for structural elucidation of a natural compound with an example. [8]
- Q.7(a) Write the salient features of structure of Cardiac glycosides and steroidal saponin and their biosynthesis and uses. [7]
Q.7(b) Write the salient features of structure of three different hormones and one mineralocorticoid and write their uses. [8]

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