

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

CLASS: M. PHARM.
BRANCH: PHARMACY

SEMESTER: I
SESSION: MO25

SUBJECT: MPC104T CHEMISTRY OF NATURAL PRODUCTS

TIME: 3.00 Hours

FULL MARK: 75

INSTRUCTIONS:

1. The missing data, if any, may be assumed suitably.
2. Before attempting the question paper, be sure that you have got the correct question paper.
3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
5. Answer any five questions.

- 1a. Write on the opium poppy cultivation, collection of latex, and chemical tests for morphine alkaloid detection. [7]
- 1b. Write on the isolation procedure of lovastatin and its mechanism of action. [8]
- 2a. Describe the structure and function of the neuromuscular junction and the blocking effects of curare alkaloids. [7]
- 2b. How will you use knowledge of recombinant DNA technology for the development of new drugs? [8]
- 3a. Describe indigenous plants for the treatment of diabetes. [7]
- 3b. Describe the history of the artemisinin invention and its mechanisms of action. Similarly, write your ideas to identify new drugs from the indigenous Indian resources. [8]
- 4a. Write the DNA analysis procedure by agarose gel electrophoresis. [7]
- 4b. Discuss the classification, isolation, biological activity, and general methods of structural elucidation of steroids. [8]
- 5a. Explain the structure elucidation of morphine. [7]
- 5b. Discuss the classification, isolation, purification, and general methods of structural elucidation of alkaloids. [8]
- 6a. Explain the structure elucidation of quercetin. [7]
- 6b. Discuss the classification, isolation, purification, and general methods of structural elucidation of flavonoids. [8]
- 7a. Explain the structure elucidation of squalene. [7]
- 7b. Discuss the classification, isolation, isoprene rule, and general methods of structural elucidation of Terpenoids. [8]

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