

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

CLASS: M.PHARM
BRANCH: PHARMACY

SEMESTER: I
SESSION: MO-25

SUBJECT: MPG103T PHYTOCHEMISTRY

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.

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| 1a. | Explain different methods for extraction of volatile oils | [7] |
| 1b. | Describe the biosynthetic pathway of aromatic amino acids, including key intermediates and enzymes. | [8] |
| 2a. | Discuss the factors effecting NMR spectra. | [7] |
| 2b. | Explain with examples lead molecules from natural sources are used in drug synthesis | [8] |
| 3a. | Explain the Mevalonic Acid pathway and its role in the biosynthesis of essential compounds. | [7] |
| 3b. | Describe types of chromatographic techniques, their principles, and applications. | [8] |
| 4a. | Explain the concept of building blocks in natural products and their significance. | [7] |
| 4b. | Describe the general properties of cardiac glycosides and their biosynthesis. | [8] |
| 5a. | Compare different extraction methods for natural products, noting advantages and disadvantages. | [7] |
| 5b. | Give examples of drugs derived from traditional medicinal plants and their significance in modern medicine. | [8] |
| 6a. | Describe the biosynthetic pathway of amino acids, mentioning key steps and enzymes. | [7] |
| 6b. | Explain characteristics and biosynthesis of steroidal saponins. | [8] |
| 7a. | Discuss various methods used to elucidate biosynthetic pathways. | [7] |
| 7b. | Explain the process of drug discovery from natural sources, outlining the main stages involved. | [8] |

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