

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

CLASS: M.Pharm
BRANCH: PHARMACY

SEMESTER: I
SESSION: MO-22

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.
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- 1a. Discuss the physiological significance of Vitamin C and B12. [7]
1b. Define and classify Alkaloids. Write down the general method for determination of structure of alkaloids. [8]
- 2a. Define Flavonoids. Write down the physiological role of Flavonoids and sources of types of flavonoids. [7]
2b. How will characterize Quercetin. Write down the SAR of Quercetin. [8]
- 3a. Write short note on Swertia chirata and Trigonella. [7]
3b. Discuss the various types of Diabetes. Write in brief about the mechanism of action of Gymnemic acid for the treatment of diabetes. [8]
- 4a. Write down the structure of following drugs [7]
i) Ephedrine ii) Ergot iii) Quercitin iv) Gymnemic acid
4b. Explain the principle and applications of Hybridoma technology with a neat diagram? [8]
- 5a. Draw the IR spectrum and write the different factors affecting IR spectra of a compound? [7]
5b. Explain why proton peak of acetylene appears in up field, where as that of benzene in downfield with a neat diagram [8]
- 6 Write the factors to be considered for developing lead molecules from natural source and give examples of drugs developed from natural source as well? [15]
- 7a. How does oligonucleotide and gene therapy work? Explain the mechanism with help of a neat illustration and give the applications of these therapies? [7]
7b. Explain the terms a) Splitting b) Coupling constant with examples [5+3]

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