

Your Roll No.....

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School of Pharmaceutical Education and Research
M. Pharm. I Semester Examination (2023-24)

Subject: **Chemistry of Natural Products**
Paper Code: **MPC104T**

Date: **15-3-2024**

Maximum Marks: **75**
Time: **Three hours**

(Write your Roll No. on the top immediately on receipt of this question paper)

Note: This paper has two Sections; A and B.

Attempt all the two sections.

Section A: Answer all the questions.

Section B: Answer any 4 out of 6 questions

Abbreviations Used:

CO- Course Outcome, PO- Program Outcome, BTL- Bloom Taxonomy Level: BT level 1- Remember; BT level 2- Understand; BT level 3- Apply; BT level 4- Analyze; BT level 5- Evaluate; BT level 6- Create.

SECTION-A

Answer the following in brief (Attempt all questions)

5x3= 15 Marks

Q. No 1	Question	BTL	CO	PO
(a)	Name different methods of structural determination of alkaloids.	2,4	1,2	2,3
(b)	Write applications of gene therapy and oligonucleotide therapy.	2,3	1,2	1,2
(c)	Write the difference between isoprene and special isoprene rule.	2,3,4	1,2	1,2
(d)	Define 'lead compound' with example.	2,3	1,2	2,3
(e)	What are CVS drugs of natural origin?	2,3	1,2	2,3

SECTION B

Long type Questions (Attempt any 4 out of 6)

4x15= 60 Marks

	Question	BTL	CO	PO
Q. No 2	Discuss morphine as lead compound for development of new compounds	2,3,5	1,2	2,3
Q. No 3	Write isolation & purification of flavonoids. Discuss general methods of structural elucidation of flavonoids.	2,3,4	1,2	2,3
Q. No 4	Discuss structure elucidation and stereochemistry of Reserpine OR Ephedrine.	2,3,5	1,2	2,3
Q. No 5	Write short notes on (any three)- (a) Recombinant DNA technology (b) Quercetin (c) Contraceptive agents (d) Swertia chirata (e) Curcuma longa (f) Vitamin A	2,3,4	4	1,5,6
Q. No 6	Write on anticancer drugs from natural origin. Explain SAR of docetaxel OR paclitaxel.	2,3	1,2	2,3
Q. No 7	Write in detail about IR, NMR and MS data of the following compounds (any two) (a) Benzylpenicillin (b) Camphor (c) Digitoxin	2,3	1,2	2,3