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MPHARM
(SEM I) THEORY EXAMINATION 2024-25
CHEMISTRY OF NATURAL PRODUCTS

TIME: 3 HRS

M.MARKS: 75

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief.

10 x 2 = 20

a.	Enumerate various gene therapy.
b.	Discuss the terpenoids.
c.	Define Photo oxidation.
d.	Recite immobilized enzymes.
e.	Define Carotenoids.
f.	Outline about Contraceptive agents.
g.	Discuss the term Taxol.
h.	Give chemical constituents of <i>Gymnema sylvestre</i> .
i.	Summarize the concept of oligonucleotide.
j.	Discuss about DNA estimation.

SECTION B

2. Attempt any *two* parts of the following:

2 x 10 = 20

a.	Elaborate the principle of recombinant DNA (rDNA) technology
b.	Give brief account on structural characterization of morphine using ¹³ C-NMR, FTIR and mass spectroscopy
c.	Write down importance of mass fragmentation pattern in structure elucidation taking suitable example of natural compound.

SECTION C

3. Attempt any *five* parts of the following:

5 x 7 = 35

a.	Analyze strategies for solution phase peptide synthesis with examples.
b.	Explain the acid degradation of β-lactam antibiotics
c.	Give brief account on chemistry of azithromycin
d.	Outline principles of green chemistry.
e.	Elaborate applications of Hybridoma Technology
f.	Describe chemistry and physiological importance of Vitamin A
g.	Discuss the nomenclature and stereochemistry of steroids