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

CLASS: BPHARM **SEMESTER: V**
BRANCH: PHARMACY **SESSION: MO 2024**

SUBJECT: BP504T PHARMACOGNOSY & PHYTOCHEMISTRY-II

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.**
4. **This question paper consists of (03) three parts. Read the part wise instructions before attempting the questions.**

PART-I

Objective type questions (Instruction: Answer all questions) (10 x 2 = 20 Marks)

Q1.

A.	What is the biological source of Aloes, and which species are used commercially?	CO-3
B.	List the morphological and identifying characters of Digitalis	CO-3
C.	Which methods can be used to chemically identify Colophony?	CO-3, CO-5
D.	What is the biological source of Tea and its uses?	CO-3
E.	State the utilization of the following drugs: i) Caffeine ii) Taxol iii) Vincristine iv) Sennoside.	CO-4
F.	Differentiate between HPTLC and TLC?	CO-4
G.	What is the difference between normal-phase and reverse-phase chromatography?	CO-4
H.	Write the structures of acidic, basic, and amphoteric acids	CO-1
I.	Draw the molecular structures of amino acids containing a sulfhydryl group, a guanidine group, and a hydroxyl group.	CO-2
J.	Identify the different building blocks for various phytoconstituents.	CO-1

PART-II

Short Answers

(Instruction: Answer seven out of nine questions) (7 x 5 = 35 Marks)

Q2.	State the biological source, chemical constituents, and uses of Belladona.	CO-3, CO-5, CO-4
Q3.	Discuss the source, collection-cultivation, chemical constituents, and pharmacological actions of *Digitalis*	CO-3, CO-5
Q4.	Give the biological source, chemical constitutes with structure and uses of any volatile containing drug.	CO-3, CO-5 CO-4
Q5.	Write down the method of isolation, identification and analysis of Menthol.	CO-3, CO-5
Q6.	Give general information about Diosgenin. Write its production and utilization.	CO-4
Q7.	Propose a biosynthetic pathway for production of an alkaloid containing aromatic ring?	CO-1, CO-2
Q8.	How are different classes of terpenoids synthesized in plants starting from acetyl CoA?	CO-1, CO-2
Q9.	State the principle of electrophoresis and write different types of electrophoresis?	CO-4
Q10.	Evaluate the different methods for extraction of volatile oils?	CO-3, CO-5

PART-III

Long Answers

(Instruction: Answer two out of three questions) (2 x 10 = 20 Marks)

Q11.	Define Alkaloids. Describe its classification, isolation method and chemical test.	CO-3, CO-5
Q12.	Enumerate the different techniques used to elucidate the biosynthetic pathways?	CO-1
Q13.	Write the advantages and disadvantages of different methods of extraction of plant drugs?	CO-4

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