

**B. PHARMACY, SECOND YEAR, SECOND SEMESTER EXAM 2023**

**Subject: PHARMACOGNOSY AND PHYTOCHEMISTRY I**

**Time: 3 hours**

**Full marks: 75**

**(Answer any 5 questions taking at least 2 from each group)**

**Group A**

1. Write down the composition of plant tissue culture media. Discuss the protocol for surface sterilization of explants. Discuss briefly elicitation and synthetic seeds.  $6 + 5 + 4 = 15$
2. Define volatile oils and discuss their physicochemical properties. Write down the different methods of extraction of volatile oils from crude drugs. Discuss the cell growth characteristic in plant cell suspension culture.  $4 + 7 + 4 = 15$
3. Write notes on
  - a. Types of cell suspension culture
  - b. Microscopic evaluation of crude drugs
  - c. Classification of glycosides $5 \times 3 = 15$
4. Define and classify alkaloids with suitable examples. Discuss the types and composition of resin.  $8 + 7 = 15$

**Group B**

1. Define crude drug. Give general information about uses of crude drugs for the treatment of human ailments. Cite a classical example of phytodrug which get hydrolysis by the enzyme and produce allyl isothiocyanate? Mention the name of the enzyme.  $15$
2. What is natural insecticides? Write four examples of natural insecticides. Write short notes on ideal insecticides. How you will protect the medicinal and aromatic plants by agricultural method? Mention few names of synthetic insecticides.  $15$
3. What is organized and unorganized crude drug? Give example. How will you distinguish both these crude drug? What are official, substitute and adulterant of the crude drug? Cite examples.  $15$
4. What is chemotaxonomy? Why it is consider as an ideal classification of crude drug. Give general idea about chemical classification of crude drug.  $15$