

B. Pham. 4th semester (2nd Year 2nd Semester) Examination 2022

Subject: Pharmacognosy & Phytochemistry I

Time: 3 hours

Full marks: 100

Answer five questions taking at least two from each group.

Group A

1. Write modern definition of Pharmacognosy. Give general idea about the importance of natural products in the field of Pharmaceutical Sciences. 20
2. Write the Pharmacognostic study of crude drugs. 20
3. Classify the crude drugs with suitable examples, including its advantages and disadvantages. How will you distinguish organized and unorganized crude drugs? 20

Group B

4. Define and classify plant tissue culture. Write down the applications of plant tissue culture in pharmacognosy. Explain in detail about plant tissue culture media. 20
5. Define volatile oils. What are the characteristics of volatile oils? Describe different methods of extraction of volatile oils from crude sources. What are the different methods of isolation of individual terpenes from volatile oils? 20
6. a) Define and classify resins. Write down the compositions of resins. 10
b) Discuss various types of cell suspension cultures. Describe the growth characteristics of plant cell suspension culture. 10
7. Write notes on 5 x 4 = 20
 - a) Callus culture
 - b) Synthetic seeds
 - c) Surface sterilization of explants
 - d) Hardening and acclimatization of *in vitro*-derived plants