

16400(J) 116

**B. Pharmacy 8th Semester Examination**

**Industrial Pharmacognosy (NS)**

**BP-484**

**Time : 3 Hours**

**Max. Marks : 70**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt any two questions from Section-A, any eight questions from Section-B and Section-C is compulsory.

**SECTION - A**

1. Discuss the laboratory requirements and media used for the plant tissue culture technique and explain the secondary product formation by cell suspension culture.
2. Give the industrial method of isolation and estimation of
  - (a) Sennosides.
  - (b) Diosgenin
3. Describe the Principles, Rationales and technology involved in the production of Herbal cosmetics. (10×2=20)

**SECTION - B**

4. Give a brief account of nutraceuticals with examples.
5. Write a short note on Hairy Root Culture.
6. Describe the advantages and disadvantages of chemotaxonomy.

7. Write a brief note on production and importance of solanaceous alkaloids.
8. Give the composition and uses of mentha oil.
9. Describe various raw materials used in formulation of herbal shampoos.
10. Write down the importance of Cinchona in relation to its trade.
11. Describe various herbal photosensitising agents.
12. Write a note on fungal toxins.
13. Write a brief note on plant breeders rights with reference to phytoconstituents. (5×8=40)

**SECTION - C**

14. Mention the important chemical constituents of sandalwood oil.
15. Mention the uses of taxol.
16. Name various plants used as hair darkeners.
17. Name two semisynthetic derivatives of podophyllotoxin and their uses.
18. Write down the principle underlying the technique of immobilization of cells. (5×2=10)