

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Ph. – SEMESTER VIII – EXAMINATION – SUMMER -2022**

**Subject Code: 2280005****Date: 08/06/2022****Subject Name: Pharmacognosy VI****Time: 10:30AM TO 01:30PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Enumerate methods of preparation of plant extracts. Explain any one method with diagram. **06**  
(b) Write UV spectrophotometric method of assay of sennosides. **05**  
(c) Enumerate methods for phytopharmaceuticals and describe any one method. **05**
- Q.2** (a) Define glycosides. Write stepwise procedure for isolation of glycyrrhetic acid from licorice. **06**  
(b) Write ideal plant requirement for herbal drug industry. Enumerate general equipment required for processing of plant material. **05**  
(c) Write a note on chromatographic method widely used for volatile oil analysis. **05**
- Q.3** (a) Write a note on analysis of any one resin constituent. **06**  
(b) Write the method of preparation of standardized extract of ashwagandha. **05**  
(c) Write detailed method of identification of carotenoids. **05**
- Q.4** (a) Write a note on schedule T. **06**  
(b) Write the method of preparation of amla extract. **05**  
(c) What is the staff requirement for herbal drug industry? **05**
- Q.5** (a) Write the method of isolation and separation of opium alkaloids. **06**  
(b) Define pharmacovigilance. What is the importance of it with reference to phytoconstituents? **05**  
(c) What is the importance of GMP. Write a brief note with reference to manufacturing of herbal formulation. **05**
- Q.6** (a) Classify terpenoids. Write isolation of citral from suitable plant material. **06**  
(b) Enumerate hyphenated analytical techniques. Write a note on any one technique. **05**  
(c) Classify drugs acting on liver. Give the definition of each class. Enlist herbal drugs used as hepatoprotective. **05**
- Q.7** (a) What is the need of ISO-9000 in herbal drug industry? Explain in detail. **06**  
(b) What are immunomodulators? Write a brief note on recent developments in research on plants used as immunomodulators. **05**  
(c) Write a note on plants and their sources used as memory enhancers. **05**

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