

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER-8 EXAMINATION – WINTER -2023**

**Subject Code: 2280005****Date: 11/12/2023****Subject Name: Pharmacognosy-VI****Time:02.30 p.m. to 5.30 p.m.****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) Define extraction. Enlist different type of extraction methods. Write advantage of maceration and decoction **06**
- (b) Write down the biological source, chemical constituent, method of isolation, estimation and identification test of sennosides **05**
- (c) Write a note on source, chemical constituents and isolation of penicillin. **05**
- Q.2** (a) Define c-GMP and QMS? What are implementations of ISO-9000 in herbal drug industry? **06**
- (b) Write down principle, working, application of supercritical fluid extraction **05**
- (c) Discuss about natural product used as immunomodulators and antidiabetics. **05**
- Q.3** (a) Write a note on source, chemical constituent, identification test, method of isolation, and estimation of caffeine. **06**
- (b) Write a note on soxhlet extraction with their merits and demerits **05**
- (c) Write down the biological source, chemical constituent, identification test, method of isolation, and estimation of diosgenin. **05**
- Q.4** (a) Write a note on Quality control requirement and distribution of records for ayurvedic, unani, and homeopathic medicine in as per schedule-T. **06**
- (b) Write method for preparation and standardization parameter of *Amla* and *turmeric* extract **05**
- (c) Write different herbs, and their active useful as hepatoprotective and anti-cancer. **05**
- Q.5** (a) Enlist different modern analytical techniques for analysis of herbal drugs. Describe advantages and disadvantages of HPLC & HPTLC. **06**
- (b) Define herbal pharmacovigilance? Give it's important and estimation in herbal drug industry. **05**
- (c) Write a note on research and development and pilot scale-up technique. **05**
- Q.6** (a) Define herbal extract and standardization. Enlist the different parameter for standardization of herbal extract. Write evaluation of herbal extract. **06**
- (b) Write note on recent development in hypolipidemic and anti-asthmatic. **05**
- (c) Write down the suitable method of isolation of Ephedrine. **05**
- Q.7** (a) Discuss requirement of infrastructure staff and equipment's for herbal drug industry. **06**
- (b) Write down the biological source, chemical constituent, method of isolation, estimation, and identification test of quinine. **05**
- (c) Discuss problem faced in India for phytopharmaceutical evaluation. **05**