

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 8 EXAMINATION – SUMMER -2019**

**Subject Code: 2280005****Date: 16-05-2019****Subject Name: Pharmacognosy-VI****Time: 10:30 AM TO 01:30 PM****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 different parameters for standardization of Amla extract. Explain any two in detail. **06**  
(b) Write therapeutic significance, isolation method and qualitative identification of Cinchona alkaloids. **05**  
(c) Describe a suitable method for isolation of Streptomycin. **05**
- Q.2** (a) Write therapeutic significance and different isolation methods of Diosgenin. **06**  
(b) Give a brief account on Soxhlet extraction with well labeled diagram. **05**  
(c) Describe in detail recent natural products used as Immunomodulators. **05**
- Q.3** (a) Give qualitative and quantitative analytical methods for evaluation of Alkaloids. **06**  
(b) Enlist sources of Sennosides. Explain principle and procedure for estimation of Sennosides as per IP method. **05**  
(c) Discuss in brief concept of GMP in herbal drug industry. **05**
- Q.4** (a) Enumerate different estimation methods of Morphine in Opium. Discuss any two in detail. **06**  
(b) Write a short note on Phytopharmacovigilance. **05**  
(c) Give sources and therapeutic significance of Podophyllotoxin. Discuss its method of isolation and purification. **05**
- Q.5** (a) Mention natural sources of Rutin. Describe qualitative identification tests and quantitative estimation methods of Rutin. **06**  
(b) Write a note on natural products used as Anticancer agents. **05**  
(c) Give salient features of Pilot plant scale up techniques in herbals. **05**
- Q. 6** (a) Discuss the modern herbal drugs used as Antidiabetics. **06**  
(b) Give method of isolation, identification and estimation of Vitamin A. **05**  
(c) Write evaluation techniques for Volatile oil containing drugs. **05**
- Q.7** (a) What is ISO 9000? Elaborate the benefits of implementation of ISO 9000 in herbal drug industry. **06**  
(b) Enlist Non-conventional extraction methods. Write a note on Microwave assisted extraction method. **05**  
(c) Discuss method of isolation, identification and estimation of Menthol. **05**

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