

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER-V • EXAMINATION – SUMMER 2017

Subject Code: 2250006**Date: 16/06/2017****Subject Name: Pharmacognosy III****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.

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| Q.1 | (a) | Write down the structure and identification tests for following phytoconstituents
1) Sennoside B 2) Rutin 3) Digitoxose | 06 |
| | (b) | Give the difference between Cardenolide & bufadienolide and write note any one bufadienolide containing drugs. | 05 |
| | (c) | Write note on bitter tonic drugs. | 05 |
| Q.2 | (a) | Discuss the different sources of Liquorice and give its chemical constituents and pharmacological actions. | 06 |
| | (b) | Define Saponin glycoside. Give the difference between steroidal Saponin and triterpenoid Saponin (including structure). | 05 |
| | (c) | Write note on one bark drug which has cardiotoxic activity. | 05 |
| Q.3 | (a) | Discuss the distinguishing Morphological, Microscopical & chemical feature of Alexandrian & Tinnevely Senna. | 06 |
| | (b) | Define Glycoside and explain its physicochemical properties, functions and extraction methods. | 05 |
| | (c) | Write down the complete pharmacognosy of Gymnema. | 05 |
| Q.4 | (a) | Write down complete pharmacognosy of one adaptogenic drug. | 06 |
| | (b) | Write down Biological sources and chemical constituents of senega and explain transverse section of it with proper label. | 05 |
| | (c) | Give the different species of Rhubarb with geographical sources and give the Chemical constituents and identification tests for rhubarb. | 05 |
| Q.5 | (a) | Give the difference between following drugs.
1) Digitalis purpurea and Digitalis lanata
2) Centella asiatica and Bacopa moniera | 06 |
| | (b) | Give Biological source, family, chemical constituents and uses of calophyllum and Bhilama. | 05 |
| | (c) | Write down complete pharmacognosy of Flax seed. | 05 |
| Q. 6 | (a) | Define tissue culture. Write down laboratory requirement for it. | 06 |
| | (b) | Discuss the applications of plant tissue culture for production of phytoconstituents. | 05 |
| | (c) | Write note on protoplast culture and somatic hybridization. | 05 |
| Q.7 | (a) | Write down composition of nutrient media for plant tissue culture. | 06 |
| | (b) | Give Biological source, family, chemical constituents and uses of Salix and Bhangro. | 05 |
| | (c) | Write down Biological source, chemical constituents and uses of Rue and Palash. | 05 |