

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 5 EXAMINATION – SUMMER -2023

Subject Code: BP503TP**Date: 19/06/2023****Subject Name: Pharmacognosy and Phytochemistry II****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.

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| Q.1 | (a) Write in detail about acetate mevalonate pathway. | 06 |
| | (b) Discuss in detail about pathway for biosynthesis of aromatic amino acids. | 05 |
| | (c) How are radioactive isotopes fed to the plants for the study of biogenetic pathways? | 05 |
| Q.2 | (a) Define Tannins and Glycosides. Write down chemical constituents and uses of Opium and Ginger. | 06 |
| | (b) Differentiate Black catechu and Pale Catechu. | 05 |
| | (c) Write down biological source, family and chemical constituents of Ginger and Rutin. | 05 |
| Q.3 | (a) Describe a suitable method for production and estimation of Diosgenin. | 06 |
| | (b) Give method for isolation and estimation of Caffeine. | 05 |
| | (c) Write down isolation, identification and analysis of Menthol. | 05 |
| Q.4 | (a) Write down biological source, chemical constituents and uses of Asafoetida and Colophony. | 06 |
| | (b) Differentiate between Fennel and Coriander. | 05 |
| | (c) Draw a neat and well labelled diagram of TS of Clove. | 05 |
| Q.5 | (a) Write a note on production and estimation of Sennosides. | 06 |
| | (b) How is industrial production of podophyllotoxin carried out? Write utilization of podophyllotoxin. | 05 |
| | (c) Give the source, isolation and identification method of Glycyrrhetic acid. | 05 |
| Q.6 | (a) Write different sources, isolation and identification of Quinine. | 06 |
| | (b) Enlist modern extraction methods. Write a note on super critical fluid (SCF) extraction. | 05 |
| | (c) Give a detailed note on industrial production of vincristine. | 05 |
| Q.7 | (a) Write down different methods of tracer techniques in the investigation of Biogenetic studies. | 06 |
| | (b) Define extraction. Enlist different modern methods of extraction. Explain in detail Microwave assisted extraction. | 05 |
| | (c) Give significance of HPTLC and GC in isolation, purification and identification of crude drugs. | 05 |
