

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm - SEMESTER– V. EXAMINATION – WINTER -2019**

**Subject Code: BP503TP**

**Date: 20/11/2019**

**Subject Name: Pharmacognosy and Phytochemistry II**

**Time: 02:30PM TO 05:30PM**

**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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|-------------|-------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Q.1</b>  | <b>(a)</b> Explain Shikimic acid pathway with chemistry.                                                                      | <b>06</b> |
|             | <b>(b)</b> Write in detail about acetate mevalonate pathway.                                                                  | <b>05</b> |
|             | <b>(c)</b> Discuss in detail about pathway for biosynthesis of lipids in plants.                                              | <b>05</b> |
| <b>Q.2</b>  | <b>(a)</b> Define Alkaloids. Write down its classification with example.                                                      | <b>06</b> |
|             | <b>(b)</b> Write down source, chemical constituents and uses of Rauwolfia and Opium.                                          | <b>05</b> |
|             | <b>(c)</b> Write down source, chemical constituents and uses of Colophony and Ginger.                                         | <b>05</b> |
| <b>Q.3</b>  | <b>(a)</b> Define Tannins and Glycosides. Write down chemical constituents and uses of Asafoetida and Taxus.                  | <b>06</b> |
|             | <b>(b)</b> Differentiate between Fennel and Coriander.                                                                        | <b>05</b> |
|             | <b>(c)</b> Give method for isolation and estimation of Caffeine.                                                              | <b>05</b> |
| <b>Q.4</b>  | <b>(a)</b> Write the biological source, isolation and estimation method of Podophyllotoxin.                                   | <b>06</b> |
|             | <b>(b)</b> Write method for isolation of atropine and Curcumin.                                                               | <b>05</b> |
|             | <b>(c)</b> Describe a suitable method for production and estimation of Diosgenin.                                             | <b>05</b> |
| <b>Q.5</b>  | <b>(a)</b> Write down pharmacognosy of drug used as a dental analgesic.                                                       | <b>06</b> |
|             | <b>(b)</b> Write down isolation, identification and analysis of Menthol.                                                      | <b>05</b> |
|             | <b>(c)</b> Give the source, isolation and identification method of Glycyrrhetic acid.                                         | <b>05</b> |
| <b>Q. 6</b> | <b>(a)</b> Write a note on production and estimation of Sennosides.                                                           | <b>06</b> |
|             | <b>(b)</b> Differentiate between Pale catechu and Black catechu.                                                              | <b>05</b> |
|             | <b>(c)</b> Write down different methods of tracer techniques in the investigation of Biogenetic studies.                      | <b>05</b> |
| <b>Q.7</b>  | <b>(a)</b> Define extraction. Enlist different modern methods of extraction. Explain in detail Microwave assisted extraction. | <b>06</b> |
|             | <b>(b)</b> Give significance of HPTLC and GC in isolation, purification and identification of crude drugs.                    | <b>05</b> |
|             | <b>(c)</b> Write a note on super critical fluid (SCF) extraction.                                                             | <b>05</b> |

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