

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. – SEMESTER V – EXAMINATION – WINTER -2020**Subject Code: BP503TP****Date: 07/01/2021****Subject Name: Pharmacognosy and Phytochemistry - II****Time: 10:30AM TO 12:30PM****Total Marks: 54****Instructions:**

1. Attempt any **THREE** questions from Q-1 to Q-6.
2. Q.7 is compulsory to attempt.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.

- Q.1** (a) Write a detailed note on use of types of radioisotopes and their characteristics in biogenetic studies. **06**
- (b) Write the biogenetic pathway of amino acids. **05**
- (c) Write the sources and types of alkaloids present in rauwolfia. **05**
- Q.2** (a) Write a detailed note on methods used to apply/feed radioactive substances to plants during biogenetic studies. **06**
- (b) Write the method of isolation and analysis of menthol. **05**
- (c) Write industrial production and utilization of caffeine. **05**
- Q.3** (a) Explain the terms extraction and isolation with the help of example. Enumerate methods of extraction. **06**
- (b) Write the application of latest spectroscopic techniques in Phytochemistry. **05**
- (c) Write a note on application of HPTLC-MS technique in identification of phytoconstituents. **05**
- Q.4** (a) Write a note on glycosides present in dioscorea. Explain with the help of reactions the commercial application of diosgenin. **06**
- (b) Write a note on general introduction of glycosides. Differentiate between types of cardiac glycosides. **05**
- (c) Write chemistry, sources and uses of guggul. **05**
- Q.5** (a) Write isolation, identification and analysis of artemisin. **06**
- (b) Write isolation, identification and analysis of glycyrrhetic acid **05**
- (c) Write isolation, identification and analysis of quinine. **05**
- Q. 6** (a) Write the industrial production and utilization of vincristine and vinblastine. **06**
- (b) Write estimation and utilization of sennosides. **05**
- (c) Write industrial production method and estimation method of forskolin. **05**
- Q.7** (a) Write the chemistry, composition and commercial application of alkaloids present in belladonna. **06**

OR

- (a) Write a note on chemistry of alkaloids present in opium. **06**

OR

- (a) Write a note on chemical classification of flavonoids. Write the commercial application of rutin. **06**
