

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.**

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| 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 disogenin. | 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 |
