

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Ph. - SEMESTER– III• EXAMINATION – WINTER -2023**

**Subject Code: BP305TP****Date: 20/01/2024****Subject Name: Pharmacognosy and Phytochemistry I****Time: 10:30 AM TO 1:30 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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|---|---|-----------|
| <b>Q.1</b>  | (a) Write a note on sources of drugs giving examples in each class.   | <b>06</b> |
|   | (b) Differentiate between organized and unorganized drugs.  | <b>05</b> |
|   | (c) Write a brief note on scope and development of pharmacognosy.   | <b>05</b> |
| <b>Q.2</b>  | (a) Define adulteration. Write the various methods used for adulteration of crude drugs.  | <b>06</b> |
|   | (b) Write a detailed note on physical method of evaluation of crude drugs.  | <b>05</b> |
|   | (c) Explain quantitative microscopy. Write a detailed note on lycopodium spore method.  | <b>05</b> |
| <b>Q.3</b>  | (a) Enumerate plant hormones. Discuss the role of cytokinin and auxin in plants.  | <b>06</b> |
|   | (b) What is the meaning of conservation of plants? What are the techniques used for conservation?                                 | <b>05</b> |
|   | (c) Write a note on edible vaccines.  | <b>05</b> |
| <b>Q.4</b>  | (a) Write a note on concept of treatment in Unani system of medicine.   | <b>06</b> |
|   | (b) Explain the role of Pharmacognosy in allopathy medicine.  | <b>05</b> |
|   | (c) Describe the following chemical tests:  | <b>05</b> |
|   | i) Vitali-morin test  |           |
|   | ii) Matchstick test   |           |
| iii) Shinoda test   |   |           |
| iv) Umbelliferone test  |   |           |
| <b>Q.5</b>  | (a) Define alkaloids. Classify according to the chemical nature of alkaloids with example in each class.                          | <b>06</b> |
|   | (b) What are the basic requirements for starting a tissue culture laboratory? Explain in brief the necessity of each requirement. | <b>05</b> |
|   | (c) Write a note on growth and maintenance of plant tissue culture.   | <b>05</b> |
| <b>Q. 6</b>   | (a) Write the biological source, uses and chemical constituents of:   | <b>06</b> |
|   | i) Cotton   |           |
|   | ii) Agar  |           |
|   | iii) Castor oil   |           |
|   | (b) Define pharmaceutical aids. Classify them and write a note on suspending agents.  | <b>05</b> |
| (c) Define enzymes. Classify with examples. Write the biological source of bromelain. | <b>05</b>   |           |
| <b>Q.7</b>  | (a) Enumerate factors affecting cultivation of medicinal plants. Write a note on soil fertility.                                  | <b>06</b> |
|   | (b) Define glycosides. Classify with examples in each class.  | <b>05</b> |
|   | (c) Write a note on novel medicinal agents from marine source having anticancer activity.   | <b>05</b> |