

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm. - SEMESTER-5 • EXAMINATION – SUMMER -2018**

**Subject Code: 250006****Date: 25/05/2018****Subject Name: Pharmacognosy - IV****Time: 02:30 PM TO 05:30 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) Discuss the shikimic acid pathway with structure in detail.   | <b>06</b> |
|             | (b) Write a brief note on tracer technique.   | <b>05</b> |
|             | (c) Illustrate acetate mevalonate pathway.  | <b>05</b> |
| <b>Q.2</b>  | (a) Define alkaloid. Give the classification of alkaloid with suitable example.                           | <b>06</b> |
|             | (b) Discuss the methods used for extraction of alkaloids.   | <b>05</b> |
|             | (c) Describe properties and general chemical tests for identification of alkaloids.                       | <b>05</b> |
| <b>Q.3</b>  | (a) Explain stereo isomerism with natural product examples.   | <b>06</b> |
|             | (b) Describe chemistry and biogenetic pathway of nicotine.  | <b>05</b> |
|             | (c) Draw the well labeled morphological and microscopical diagram of Datura leaf.                         | <b>05</b> |
| <b>Q.4</b>  | (a) Discuss the life cycle of ergot.  | <b>06</b> |
|             | (b) Write a note on pyridine – piperidine and discuss one drug containing pyridine – piperidine alkaloid. | <b>05</b> |
|             | (c) Give the biological source, chemical constituents and use of Pilocarpus and Colchicum.                | <b>05</b> |
| <b>Q.5</b>  | (a) Give the complete pharmacognosy of drug having anti – hypertensive activity.                          | <b>06</b> |
|             | (b) Give the pharmacognosy of anti – cancer drug.   | <b>05</b> |
|             | (c) Write a short note on Ma – Hung.  | <b>05</b> |
| <b>Q. 6</b> | (a) Discuss the cultivation and collection of opium alkaloid.   | <b>06</b> |
|             | (b) Write a short note on drug containing diterpene alkaloids.  | <b>05</b> |
|             | (c) Write a note on drug containing Imidazole alkaloid.   | <b>05</b> |
| <b>Q. 7</b> | (a) Give a brief note on Hemlock and Dubosia.   | <b>06</b> |
|             | (b) Give the pharmacognosy of Hellbore.   | <b>05</b> |
|             | (c) Discuss the adulterants and allied drugs of Nux vomica.   | <b>05</b> |

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