

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 7- EXAMINATION –WINTER - 2018

Subject Code: 2270012

Date: 28/11/2018

Subject Name: Green Chemistry

Time: 10:30 AM TO 01:30 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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|-------------|--|-----------|
| Q.1 | (a) Define Green Chemistry. Discuss twelve principles of Green Chemistry. | 06 |
| | (b) Discuss role bio-catalysts in designing green synthesis. | 05 |
| | (c) Write down Ultrasound assisted reactions of Cannizzaro reaction and Reformatsky reaction. | 05 |
| Q.2 | (a) Explain about Green solvents and Solvent less processes in briefs | 06 |
| | (b) Write about obstacles in the pursuit of the goals of Green Chemistry. | 05 |
| | (c) Write a note on Green Chemistry Applications. | 05 |
| Q.3 | (a) Discuss a note on Combinatorial Green Chemistry. | 06 |
| | (b) Write a note on Fries rearrangement microwave assisted reaction in water. | 05 |
| | (c) Write a note on Polymer Supported Catalysts. | 05 |
| Q.4 | (a) Write down Green Synthesis of Paracetamol, Ibuprofen and Adipic Acid. | 06 |
| | (b) Write a note on proliferation of solventless reactions. | 05 |
| | (c) Discuss reduction reaction of microwave assisted reactions in water with suitable examples. | 05 |
| Q.5 | (a) Write about hydrolysis of benzyl chloride and benzamide of microwave assisted reactions in water. | 06 |
| | (b) Write a note on Goals of Green Chemistry. | 05 |
| | (c) Explain microwave assisted solid state reactions with suitable example. | 05 |
| Q. 6 | (a) Discuss about Hofmann Elimination and Diels Alder Reaction of microwave assisted reactions in water. | 06 |
| | (b) Explain about ultrasonic energy in details. | 05 |
| | (c) Write a about inception of Green Chemistry. | 05 |
| Q.7 | (a) Write a note on Green Chemistry in sustainable development. | 06 |
| | (b) Discuss on avoidance of unnecessary derivatization in green chemistry. | 05 |
| | (c) Explain about microwave-assisted organic synthesis in details. | 05 |
