BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: M.PHARM (PCHEM) **SEMESTER : I**
BRANCH: BPHARMACEUTICAL SCIENCES AND TECHNOLOGY **SESSION : MO/19**

SUBJECT: MPC102T ADVANCED ORGANIC CHEMISTRY I

TIME: 3:00 HOURS **FULL MARKS: 75**

INSTRUCTIONS:
1. The question paper contains 7 questions each of 15 marks and total 105 marks.
2. Candidates may attempt any 5 questions maximum of 75 marks.
3. The missing data, if any, may be assumed suitably.
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a)	Explain (i) Dieckmann condensation (ii) Doebner Miller reaction with proper equations	[7]
Q.1(b)	Outline Michael addition & explain mechanism of action.	[8]
Q.2(a)	Explain Mitsunobu reaction with proper equations	[7]
Q.2(b)	Illustrate Ugi multi component reaction and Its properties.	[8]
Q.3(a)	Outline the synthesis of (i) imidazole (ii) pyrazole (iii)Quinoline	[7]
Q.3(b)	Elaborate the synthesis of (i) Ketoconzole (ii)Celecoxib	[8]
Q.4(a)	Define and outline the mechanism and types of reaction involved in different synthesis.	[7]
Q.4(b)	Discuss different methods for determining reaction mechanism focusing on – (i) Spectral methods (ii) Kinetic evidence	[8]
Q.5(a)	Distinguish between E1 & E2 reactions. Explain your answer with suitable examples.	[7]
Q.5(b)	What are rearrangement reaction? Describe & explain. (i) Hoffmann's rearrangement reaction (ii) Schimdt rearrangement reaction	[8]
Q.6(a)	Explain & describe the method for use of protecting groups for – (i) Carbonyl group (ii) Amino acids	[7]
Q.6(b)	Explain the role of Carbocations and nitrenes in synthetic reactions and applications.	[8]
Q.7(a)	Elaborate the various synthetic reagents with their structures	[7]
Q.7(b)	Explain the concept for synthon approach to synthesize 3,4,6, members ring systems.	[8]

::::::27/11/2019::::::E