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

CLASS: M. PHARM **SEMESTER : I**
BRANCH: PHARMACY **SESSION : MO/2022**

SUBJECT: MPC102T ADVANCED ORGANIC CHEMISTRY I

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

INSTRUCTIONS:
1. The missing data, if any, may be assumed suitably.
2. Before attempting the question paper, be sure that you have got the correct question paper.
3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a)	Explain the general methods of reaction mechanism with equations.Define SN2 mechanism	[7]
Q.1(b)	Elaborate (i) SNi mechanism (ii neighboring group participation (iii) SN1 mechanism with equations only	[8]
Q.2(a)	Free radicals can undergo termination, propagation and formation of polymers. Explain with eqautions	[7]
Q.2(b)	Describe (i) Aromatic free radical reaction (ii) Addition reactions	[8]
Q.3(a)	Describe the following: (i) Mitsunobu reaction (ii) Ullman reaction	[7]
Q.3(b)	Ugi reaction takes place in various components. Explain	[8]
Q.4(a)	Provide evidences for SN1 and SN2 reaction with equation	[7]
Q.4(b)	Elaborate synthesis of (i) Ketoconazole (ii) Metronidazole	[8]
Q.5(a)	Elaborate the procedure and mechanism of Michael addition	[7]
Q.5(b)	Differentiate between (I) Sandmeyer and Gatterman Reaction (ii) Free radical substitution and free radical addition	[8]
Q.6(a)	Define various protecting groups with examples	[7]
Q.6(b)	How will you do a Baeyer Villiger Oxidation. Elaborate with various equations	[8]
Q.7(a)	Expalin the retrosynthetic approach and the advantages of the same	[7]
Q.7(b)	Explain Brook Rearrangement with different equations	[8]

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