

I B. Pharmacy I Semester Supplementary Examinations, Jan/Feb - 2018
PHARMACEUTICAL ORGANIC CHEMISTRY-I

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is Compulsory
3. Answer any **FOUR** Questions from **Part-B**
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PART -A

1. a) What is sp² hybridization? (2M)
- b) What is a conjugated double bond? (2M)
- c) -OH group is polar. Why? (2M)
- d) Write in brief on iodoform test. (2M)
- e) Write short notes on ketoenol tautomerism in ethylacetoacetate. (2M)
- f) Differentiate mesomer and diastereomer. (2M)
- g) What are free radicals? (2M)

PART -B

2. a) What are carbocations? Write methods of preparation of carbocations. (7M)
- b) Write in detail on rearrangements observed in carbocations and their implications. (7M)
3. a) Write three methods of preparation and reactions of alkenes. (8M)
- b) Write short notes on stability of butadiene. (6M)
4. a) Differentiate SN₁ and SN₂ reactions. Add a note on factors affecting SN₁ reactions. (8M)
- b) Write short notes on Saytzeff's rule. (6M)
5. a) Write reactions of alcohols. (8M)
- b) -OH group is considered as a 'bad' leaving group, why? How can we activate it? (6M)
6. a) What is stereoisomerism? Discuss the importance of stereoisomerism in pharmaceutical chemistry. (6M)
- b) Write in detail on relative configuration with examples. (8M)
7. How do you achieve the following synthetic conversions?
 - a) Acetylene to acetaldehyde. (5M)
 - b) Cyclohexene to adipic acid. (5M)
 - c) Phenol to anisole. (4M)