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ICH 402

I Semester M.Sc. Industrial Chemistry Examination, December 2018
ORGANIC CHEMISTRY – I

Time : 3 Hours

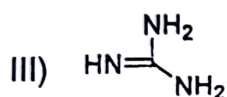
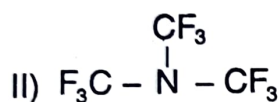
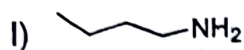
Max. Marks : 70

PART – A

1. Answer any five questions :

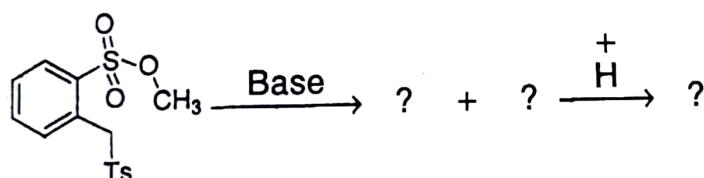
(5×2=10)

a) Arrange the following bases according to their strength in ascending order

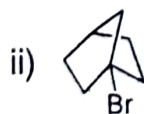
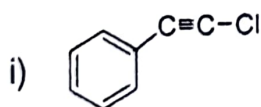


b) Why triplet carbene is more stable than singlet carbene ?

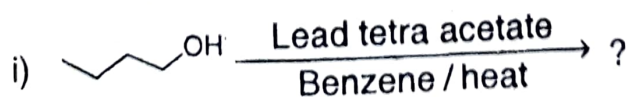
c) Predict the products in the following reaction.



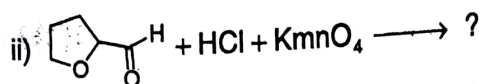
d) Why the following compounds are resistant towards nucleophilic substitution reaction ?



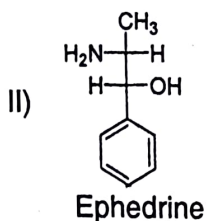
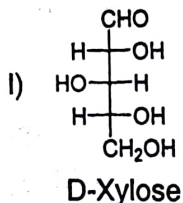
e) Write the products in the following reactions :



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- f) What is meant by witting reaction ? Give one example.
 g) Assign R and S configuration to the following compounds.



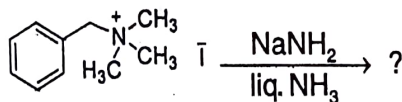
- h) Distinguish between stereoselective and stereospecific reaction. Give one example each.

PART – B

2. Answer any five full questions :

- a) Briefly discuss about the formation and stability of carbanions.
 b) How solvent effects on acidity of acid and basicity of base ?
 c) Write a short note on Hammet equation and its applications. (4+4+4)

3. a) Distinguish between specific and general acid catalysis and explain with mechanism.
 b) Which ylide generates as an intermediate in the following reaction ? Predict the product with mechanism.



- c) What are non-classical carbocation ? Explain with examples. (4+4+4)