

SUBJECT: ORGANIC CHEMISTRY - I

Day : Saturday  
Date : 13/10/2018

W-2018-0979

Time : 03.00 PM TO 06.00 PM  
Max. Marks : 60

N.B.:

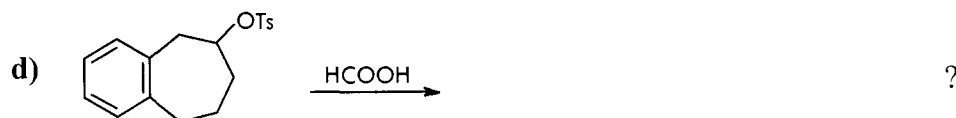
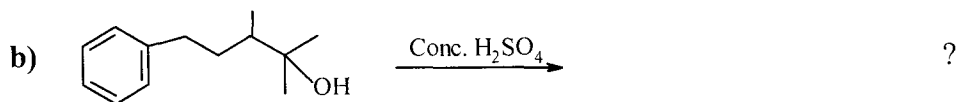
- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Answers to both the sections should be written in **SEPARATE** answer books.

SECTION – I

Q.1 Explain ANY THREE of the following: [15]

- a) threo – 3 Bromo – 2 – butanol with HBr gives inactive dibromide.
- b) Diazo coupling reaction with an example.
- c) Vinyl chloride resists hydrolysis while alkylchloride hydrolyses readily.
- d) m-dichlorobenzene with  $\text{NaNH}_2$  / liq.  $\text{NH}_3$  gives m-chloroaniline.
- e) Write a note on  $\text{S}_{\text{E}}1$  mechanism.

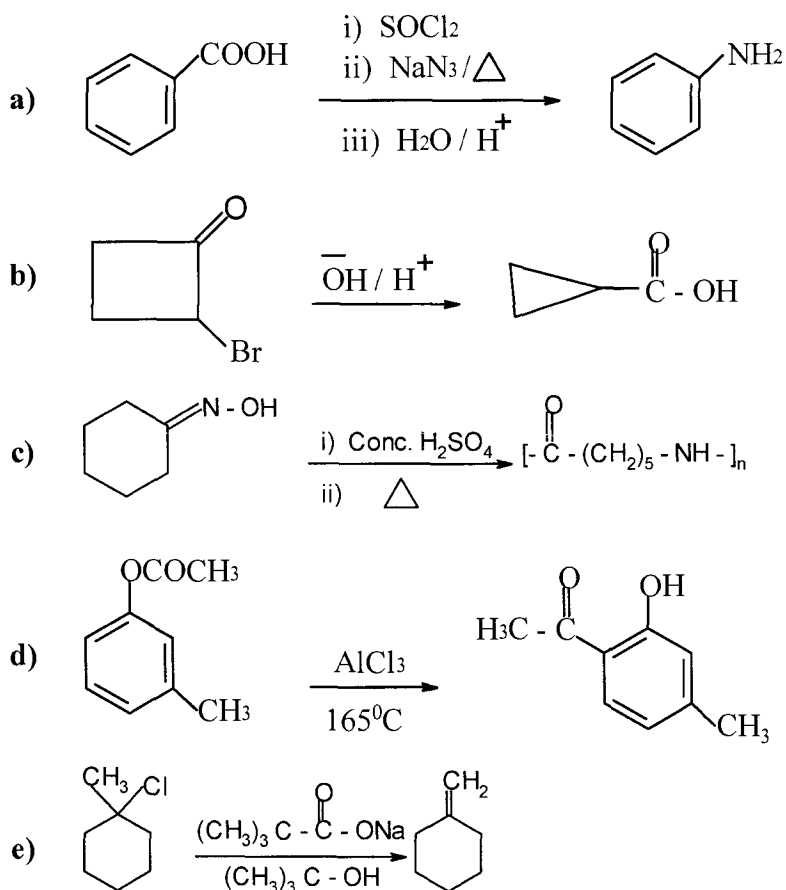
Q.2 Predict the product/s and suggest the mechanism for ANY THREE of the following: [15]



P.T.O.

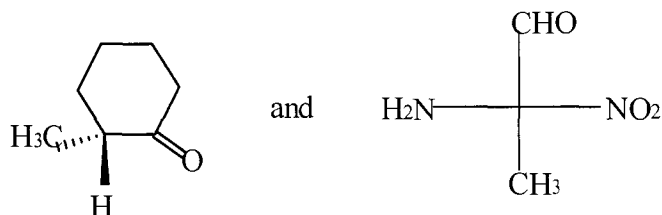
SECTION – II

**Q.3** Suggest the mechanism for **ANY THREE** of the following. Justify your answer: [15]

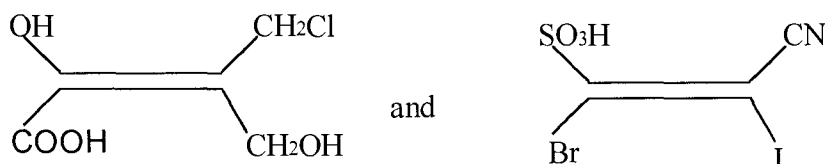


**Q.4** Attempt **ANY THREE** of the following: [15]

- Draw chair conformations of *cis* and *trans* 1, 3 – dimethyl cyclohexane. Comment on their stability and optical activity.
- Discuss the mechanism and stereochemistry of E<sub>2</sub> reaction.
- What are non-benzenoid aromatics? Discuss with suitable examples.
- i) Assign R/S configuration to the following compounds. Indicate the sequence of groups clearly.



- Assign E/Z configuration to the following compounds. Justify your answer:



- Write a note on: Annulenes.

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