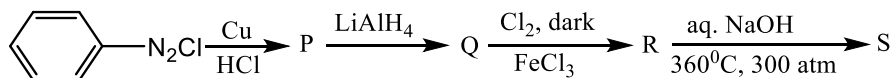


11. PHENOLS

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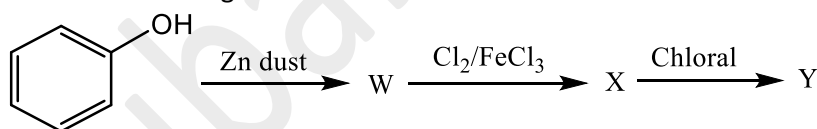
Preparations

1. Identify P, Q, R, and S in the following reaction sequence,



Chemical Properties

2. What happens when Phenol is heated with zinc dust? 1
3. How would you obtain benzene from Phenol? 1
4. What happens when Phenol is treated with Benzene diazonium chloride? 1
5. Write the chemical equation with conditions for the following reaction: Phenol is coupled with benzene diazonium chloride. 2
6. What action takes place when Phenol reacts with Ethanoyl chloride? 1
7. What happens when Trichloromethane reacts with Phenol? 1
8. Write the action of monohydroxybenzene with Trichloromethane in the presence of alcoholic NaOH. 2
9. Show your acquaintance with Reimer-Tiemann's reaction. 2
10. Give an example of Reimer-Tiemann's reaction. 1
11. The **chlorinated compound 'A' reacts with acetone to give a sleep-inducing drug.**
 - a) How would you prepare compound 'A' by using one of the isomers of $\text{C}_2\text{H}_6\text{O}$? [2]
 - b) What happens when compound 'A' is:
 - i) Exposed to air? [1]
 - ii) Heated with phenol in the presence of aq. NaOH? [2]
12. How does Phenol react with aqueous bromine? 1
13. Write the action of monohydroxybenzene with aqueous bromine. 1
14. Write the reaction between Phenol and aq. Br_2 . 2
15. How is picric acid prepared? Write its one use. 2
16. How do you explain that the $-\text{OH}$ group of Phenol is an ortho/para directing group? 2
17. How is Phenol prepared from Benzene? 2
18. How could you synthesize Toluene from Phenol?# 2.5
19. Make the following conversions:



*** ... ***

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