

Chemistry Practical Class 12 Preparation of Dibenzal Acetone Viva Questions with Answers

Q1. What is the IUPAC name of dibenzal acetone?

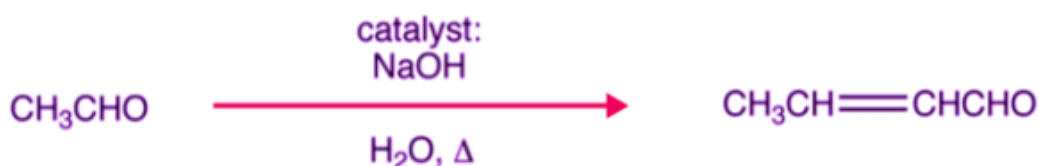
Answer: The IUPAC name of dibenzal acetone is 1,5-Diphenylpenta-1,4-dien-3-one.

Q2. What is the formula of dibenzal acetone?

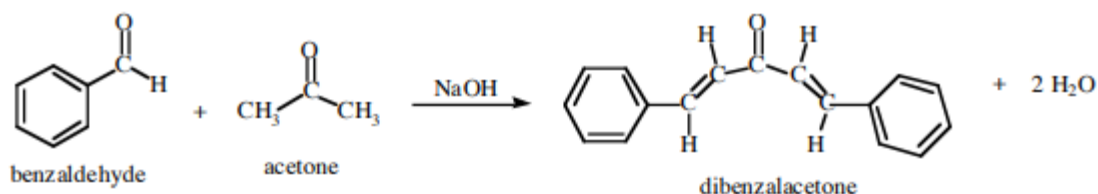
Answer: The formula of dibenzal acetone is C₁₇H₁₄O.

Q3. What is condensation reaction?

Answer: A reaction in which two or more molecules combine to form a single molecule, usually with the loss of a small molecule like water, ammonia or ethanol is known as a condensation reaction.



Q4. How can we synthesise dibenzal acetone?



Answer:

Q5. Why should we lose the cork on the mouth of the flask during heating?

Answer: We should lose the cork on the mouth of the flask during heating to prevent the building up of the pressure in the flask, which may cause an explosion.

Q6. What is the name of the reaction used to synthesise dibenzal acetone?

Answer: Claisen Condensation is used to synthesise dibenzal acetone.

Q7. What is the colour of dibenzal acetone?

Answer: Dibenzal acetone is pale yellow.

Q8. How many benzaldehyde molecules are involved in the reaction?

Answer: Two benzaldehyde molecules are involved in the reaction.

Q9. Why should we dry the product before determining its practical yield?.

Answer: We should dry the product before deciding on its practical yield because otherwise, water weight would get added, and the yield would not be accurate.

Q10. How will you confirm that the product obtained in the preparation is the desired product?

Answer: We can ensure that the product obtained in the preparation is the desired product by checking its colour, nature, qualitative tests and melting point.

Q11. What is a theoretical yield? How is it calculated?

Answer: Theoretical yield is based on the stoichiometry of the reaction. It is the maximum possible mass of a product that can be made in a chemical reaction.

Theoretical Yield = (Molar mass of the product X Mass of the reactant taken) / Molar mass of the reactant

Q12. What is recrystallisation?

Answer: Recrystallization is an analytical method used to purify chemicals. We dissolve both impurities and the expected compound in a suitable solvent.

Later, the expected compound or impurities would be removed from the solution, leaving the other behind.

Q13. Name the solvent generally used for recrystallisation. Which solvent is used in the preparation of dibenzal acetone?

Answer: Alcohol, acetone and benzene are typically used for recrystallisation. Alcohol is used in the preparation of dibenzal acetone.

Q14. What is the difference between Crystallization and Recrystallization?

Answer: Crystallization is an analytical method used to precipitate crystals from a solution due to changes in solubility conditions. In contrast, recrystallisation is used to purify the crystals obtained from crystallisation.

Q15. What is dibenzalacetone?

Answer: Dibenzal acetone is the condensation product formed between acetone and benzaldehyde.

