

31. What is required other than anhydrous  $\text{AlCl}_3$  when toluene is prepared by Friedel craft reaction?

- A.  $\text{C}_6\text{H}_6$       B.  $\text{C}_6\text{H}_6 + \text{CH}_3\text{C}_2\text{H}_5$   
C.  $\text{C}_6\text{H}_5\text{C}_2\text{H}_5$       D.  $\text{C}_6\text{H}_5\text{C}_2\text{H}_5 & \text{CH}_3\text{Cl}$

**Answer:** Option B

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32. Replacement of hydrogen of benzene by alkyl group in the presence of alkyl halide & aluminum chloride is known as

- A. Dows process      B. Friedel & Craft acylation  
C. Friedel & Craft alkylation      D. Clemmenson reduction

**Answer:** Option C

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33. Which one of the following radical is called benzyl radical?

- A.  $\text{C}_6\text{H}_5\cdot$       B.  $\text{C}_6\text{H}_5\text{C}_2\text{H}_5\cdot$   
C.  $\text{C}_6\text{H}_5\text{CH}_2\cdot$       D.  $\text{C}_6\text{H}_5\text{CH}_2^-$

**Answer:** Option D

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34. Which compound form benzoic acid on oxidation with acidified  $\text{KMnO}_4$  or  $\text{K}_2\text{Cr}_2\text{O}_7$

- A. Toluene      B. Ethyl benzene  
C. n-propyl benzene      D. All

**Answer:** Option D

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35. Ozonolysis of benzene produces

- A. Glycol      B. Glyoxal  
C. Vicinal diol      D. Both b & c

**Answer:** Option B

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36. Which one of the following is benzal chloride?

- A. C<sub>6</sub>H<sub>5</sub> CH<sub>2</sub>C?                           B. C<sub>6</sub>H<sub>5</sub> CHC?2  
C. C<sub>6</sub>H<sub>5</sub> -CH = CHC?                           D. None of the above

**Answer:** Option B

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37. What is the molecular formula of Benzenetriozoneide?

- A. C<sub>6</sub>H<sub>6</sub>O<sub>9</sub>                                   B. C<sub>6</sub>H<sub>5</sub>O<sub>8</sub>  
C. C<sub>6</sub>H<sub>5</sub>O<sub>9</sub>                                   D. C<sub>6</sub>H<sub>6</sub>O<sub>6</sub>

**Answer:** Option A

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38. The hydrolysis of Benzenetrizonide will yield three moles of

- A. Glyoxime                                   B. Benzaldehyde  
C. Glycol                                       D. Glyoxal

**Answer:** Option D