Alcohols, Phenols and Ethers

1. The correct order of boiling point of primary (1°), secondary (2°) and tertiary (3°) alcohols is

(a)
$$1^{\circ} > 2^{\circ} > 3^{\circ}$$

(b)
$$3^{\circ} > 2^{\circ} > 1^{\circ}$$

(c)
$$2^{\circ} > 1^{\circ} > 3^{\circ}$$

(d)
$$2^{\circ} > 3^{\circ} > 1^{\circ}$$

▼ Answer

Answer: a

$$C_2H_5OH + SOCl_2 \xrightarrow{Pyridine} C_2H_5Cl + SO_2 + HCl$$

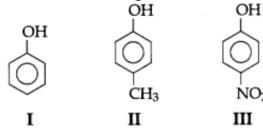
The above reaction is known as

- (a) Williamson's reaction.
- (b) Hofmann's synthesis.
- (c) Mendies reaction,
- (d) Darzen's reaction.

▼ Answer

Answer: d

3. The correct acidic strength order of the following



is-

- (a) I > II > III
- (b) III > I > II
- (c) II > III > I
- (d) I > III > II

▼ Answer

Answer: b

- 4. Which compound is predominantly formed when phenol is allowed to react with bromine in aqueous medium?
- (a) Picric acid
- (b) O-Bromophenol
- (c) 2, 4, 6-Tribromophenol
- (d) p-Bromophenol

▼ Answer

Answer: c

- 5. Phenols are more acidic than alcohols because
- (a) Phenoxide ion is stablised by resonance
- (b) Phenols are more soluble in polar solvents
- (c) Phenoxide ion does not exhibit resonance
- d) Alcohols do not lose H atoms at all

▼ Answer

Answer: a ▼ Answer

Answer: d

6. The compound B is formed in the sequence of the reaction given below:

$$C_6H_5OH + NaOH + CCl_4 \xrightarrow{Heat} A \xrightarrow{HCl} B$$

The compound B is

- (a) Salicylaldehyde
- (b) Benzoic acid
- (c) Salicylic acid
- (d) Cinnamic acid

▼ Answer

Answer: c

- 7. Which of the following reagents cannot be used to distinguish between phenol and benzyl alcohol?
- (a) FeCl₃
- (b) Litmus soln
- (c) Br_2/CCl_4
- (d) All of these

▼ Answer

Answer: c

8. Identify Z in the series

$$C_{3}H_{7}OH \xrightarrow{Conc. H_{2}SO_{4}} X \xrightarrow{Br_{2}} Y \xrightarrow{Excess of alc. KOH} Z$$
(a) $CH_{3} - CH - CH_{2}$
 $NH_{2} \quad NH_{2}$
(b) $CH_{3} - CH - CH_{2}$
 $OH \quad OH$
(c) $CH_{3} - C = CH_{2} \quad (d) \quad CH_{3} - C \equiv CH$
 $OH \quad OH$

▼ Answer

Answer: d

- 9. 1-propanol and 2-propanol can be best dis-tinguished by
- (a) Oxidation with KMnO₄ followed by reaction with Fehling solution.
- (b) Oxidation with acidic dichromate followed by reaction with Fehling solution.
- (c) Oxidation by heating with copper followed by reaction with Fehling solution.
- (d) Oxidation with concentrated H₂SO₄ followed by reaction with Fehling solution.

▼ Answer

Answer: c

$$C_6H_5OH \xrightarrow{CCl_4} X \xrightarrow{Zn \text{ dust}} Y \xrightarrow{Na} Zn \text{ dust}$$

In the above sequence Z is

- (a) Toluene
- (b) Cresol
- (c) Benzene
- (d) Benzol

▼ Answer

Answer: c

11. The major organic product in the reaction, $CH_3 - O - CH(CH_3)_2 + HI \rightarrow product$: is/are

- (a) $CH_3I + (CH_3)_2CHOH$
- (b) CH₃OH+(CH₃)₂ CHI
- (c) ICH₂ OCH (CH₃)₂

(d)
$$CH_3 - O - C - (CH_3)_2$$

▼ Answer

Answer: a