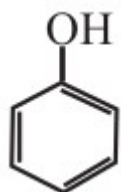


FIRST TERM EXAMINATION:2025
CHEMISTRY- Answer Key

1. aldehyde
2. C
3. D
4. B

5.



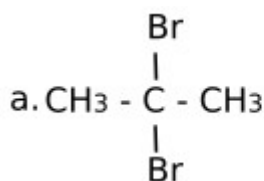
Phenol

6. a. When hydrocarbons burn, they combine with oxygen in air to form CO_2 and H_2O along with heat and light. This process is called combustion.
b. $\text{X} - \text{CO}_2 \text{ \& } \text{H}_2\text{O}$

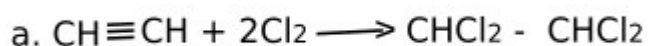
- 7A. . $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{OH}$
b. Propanol

- 7B. a. $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{COOH}$
b. Pentanoic acid

8.

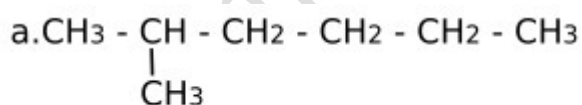


9.



- b. $\text{CHCl}_2 - \text{CHCl}_2$: 1,1,2,2 tetrachloroethane

10.

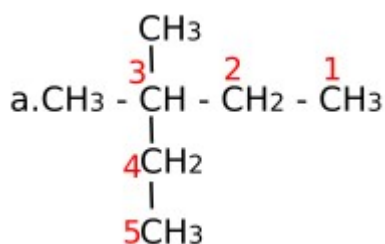


- b. 2 - methylhexane

- 11A.i.Common Name: tefflon ii. IUPAC Name:Poly tetrafluoroethene

- 11B. a. Monomers: Adipic acid and Hexamethelenediamine. b. It is used for making fabrics

12.



- b. 3 c. 3,3 - dimethylpentane

13A.a. Aldehydes

b.1: Ethanal 2. Propanal

c. $\text{CH}_3 - \text{CO} - \text{CH}_3$

13B.a. Pentan - 2 - one: $\text{CH}_3 - \text{CO} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$

Pentan - 3 - one: $\text{CH}_3 - \text{CH}_2 - \text{CO} - \text{CH}_2 - \text{CH}_3$

b. ketones

c. $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CHO}$

14. a.i. Methanol can be prepared by treating carbon monoxide with hydrogen in the presence of catalyst at 573 K temperature

ii. Ethanoic acid can be prepared by treating methanol with carbon monoxide in the presence of a catalyst.

b. $\text{CH}_3 - \text{OH} + \text{CO} \rightarrow \text{CH}_3 - \text{COOH}$

15. a. Ester

b. $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{COOH} + \text{HO} - \text{CH}_2 - \text{CH}_3 \rightarrow \text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{COO} - \text{CH}_2 - \text{CH}_3 + \text{H}_2\text{O}$

c. Ethylbutanoate

16A.a. $1s^2 2s^2 2p^6 3s^2 3p^5$ b. 2s & 2p c. 3

16B.a. 2p b.3 c. 4 orbitals

17.

a. i. $\text{CH} \equiv \text{CH} + \text{HCl} \longrightarrow \text{CH}_2 = \text{CHCl}$

ii. $n\text{CH}_2 = \text{CHCl} \longrightarrow \left[\text{CH}_2 - \text{CHCl} \right]_n$

b.i. Addition reaction ii. Polymerisation

18A.a. Alcohol and Ether

b. i. $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{OH}$ ii. $\text{CH}_3 - \text{CH}_2 - \text{O} - \text{CH}_2 - \text{CH}_3$

c.i. $\text{CH}_3 - \underset{\text{OH}}{\text{CH}} - \text{CH}_2 - \text{CH}_3$ ii. $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{OH}$

d. i. $\text{CH}_3 - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ ii. $\text{CH}_3 - \text{CH}_2 - \text{O} - \text{CH}_2 - \text{CH}_3$

18B.a. $\text{C}_n\text{H}_{2n-2}$

b. i. $\text{CH} \equiv \text{C} - \text{CH}_2 - \text{CH}_3$ ii. $\text{CH}_3 - \text{C} \equiv \text{C} - \text{CH}_3$

c. Position isomerism

d.i. $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ ii. $\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_3$