

SSLC MODEL EXAMINATION FEBRUARY – 2019

CHEMISTRY ANSWER KEY

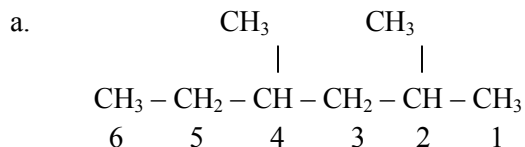
1. 6
2. 22.4 L
3. Carboxylic group (-COOH)
4. Antipyretics
5. Butane
6.
 - a. Cu
 - b. $\text{Mg} + \text{Zn}^{2+} \rightarrow \text{Mg}^{2+} + \text{Zn}$
7.
 - a. Copper pyrites
 - b. Magnetite
8.
 - a. 8g H₂
 - b. 28g N₂
9.
 - a. Propan – 2 – ol
 - b. CH₃ – CH₂ – CH₂ – OH
10.
 - a. $1s^2 2s^2 2p^6 3s^2 3p^4$
 - b. 2
11.
 - a. Clay, limestone and gypsum
 - b. To adjust the setting of cement
 - c. Cement reacts with moisture and undergoes setting.
12.
 - a. 8
 - b. +3
 - c. $1s^2 2s^2 2p^6 3s^2 3p^6 3d^5$
13.
 - a. Rate of forward reaction becomes equal to rate of backward reaction
 - b. Rate of forward reaction decreases
 - c. When temperature decreases system try to increase the temperature by carrying exothermic reaction. So decomposition decreases because here exothermic reaction is in backward direction.
14.
 - a. C₂H₅Cl
 - b. C₃H₆Cl₂
 - c. [CH₂ – CH₂]_n –
15.
 - a. 2:1
 - b.

- (i) $4N_A$
(ii) 3 mol H_2

16.

- Bauxite ($Al_2O_3 \cdot 2H_2O$)
- Separation of impurity from ore using a suitable solvent which dissolves ore only.
- To reduce melting point of alumina and to increase electrical conductivity.
- Duralumin – Used for making bar, rods, screw etc and also for making aircraft structure.

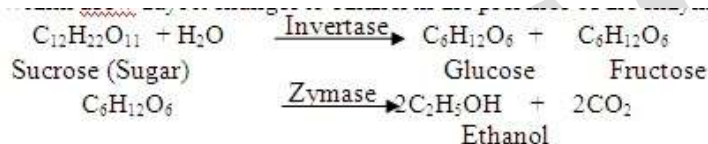
17.



- Methyl groups
- 2,4 – Dimethylhexane
- $CH_3 - CH_2 - CH_2 - CH_2 - CH_2 - CH_2 - CH_2 - CH_3$

18.

- By the fermentation of molasses



- $CH_3 - COO - CH_2 - CH_3$
- Ester

19.

- Mg
- Mg to Fe
- Fe
- $Mg + Fe^{2+} \rightarrow Mg^{2+} + Fe$

20.

a.

Materials required: sodium thiosulphate, hydrochloric acid, water, boiling tube, spirit lamp.

Procedure: Take equal quantities of dilute aqueous solutions of sodium thiosulphate in two boiling tubes. Heat one of them and add equal quantities of dil.HCl to both.

Observation: Immediate colour change is visible in the heated boiling tube due to the pale yellow Precipitation of Sulphur.

- When temperature increases, the average kinetic energy of the reactant molecules increases. Thus more molecules acquire energy greater than the threshold energy and the rate of effective collision increases. Hence the speed of the reaction also increases according to collision theory.
- Use concentrated HCl.

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