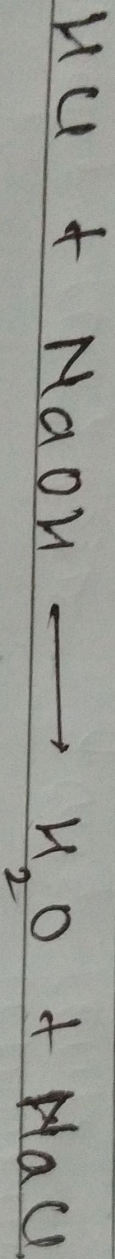


Question 2

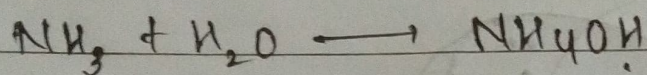
(a) Let's understand the reaction first :-



This reaction is exothermic in nature and due to the heat, water starts to convert into steam. Due to which, pressure also starts building up which is more than the atmospheric pressure making the solution escape the flask.

(b) Blue fountain will be observed if NaOH is used as NaOH will have a higher pH and will turn the solution basic.

(c) Practically, you will see no reaction because NaOH and NH_3 and water does not react with each other.



The solution produced will be basic in nature.

(ii) Match the following.

(a) Aluminium \rightarrow 3. Hall Heroult's process

(b) sulphuric acid \rightarrow 4. Contact process.

(c) Calcination \rightarrow 2. Carbonate ore

(d) Calcium chloride \rightarrow 5. Electrovalent compound

(e) Carbon tetrachloride \rightarrow 1. Covalent compound

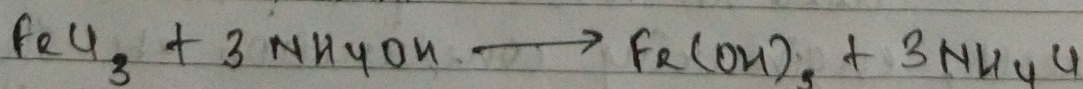
(iii)

(a) ~~largest~~ largest

Because of the no. of e^- and p^+ nuclear force of attraction.

(b)

(c) Reddish brown.



(d) Substitution

Alkanes cannot exhibit addition reaction.

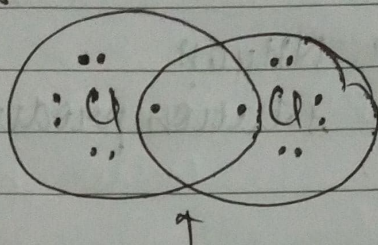
(i) Alkaline
Methyl orange turns red in acidic solution.

(iv)

(a)

Covalent bond.

It is formed by mutual sharing of e^- between two atoms



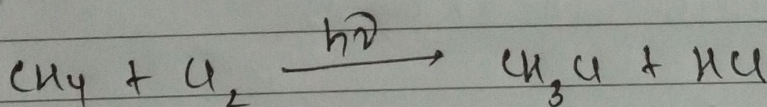
mutually shared.

(b)

Neutral salt

When acid and base reacts, they form salt and water and both have a neutral $\text{pH} = 7$.

(c) Free radical chlorination / substitution reaction



(d)

Ionization enthalpy.

Metals generally lose e^- and non-metals accept to form ionic compound.

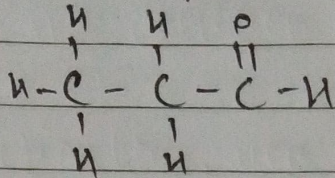
(e)

Alloy.

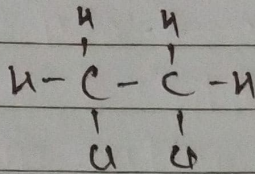
Used in various places such as home (steel), engineering construction etc. This process improves the strength and durability of any metal.

(v)

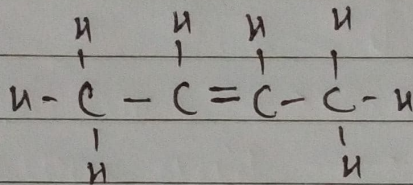
(a) (1) 1-Propanal



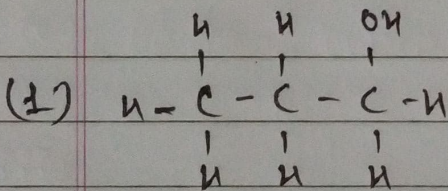
(2) (ii) 1,2 dichloroethane



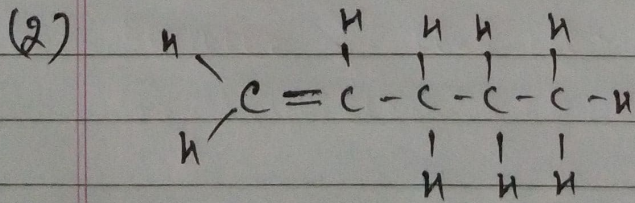
(3) But-2-ene



(b) IUPAC



Propanol / 1-Propanol



1-Pentene