

MT EDUCARE LTD.

ICSE X

SUBJECT : **CHEMISTRY**

ORGANIC CHEMISTRY

Assignment Sheet

STEP UP ANSWERSHEET

30. Ethane [2013]

31. Halogenation [2013]

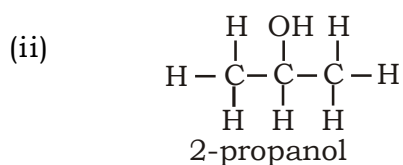
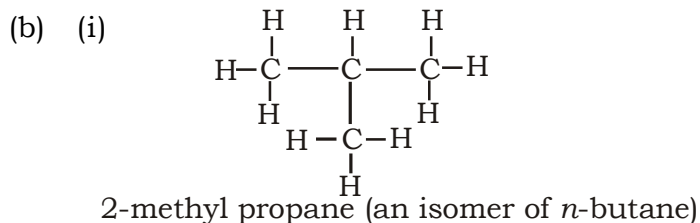
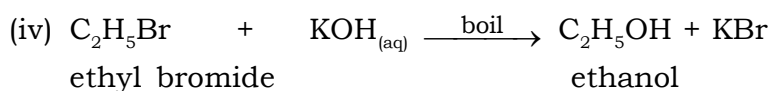
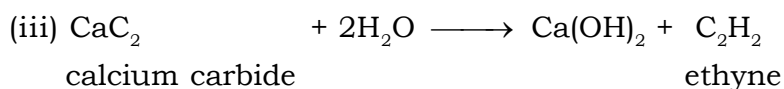
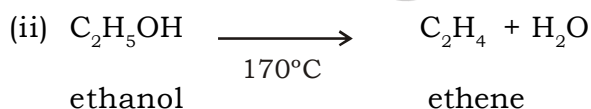
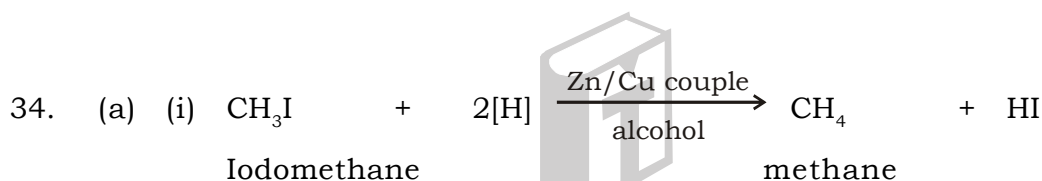
32.

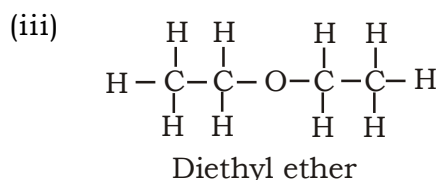
Test	Ethene	Ethane
On shaking few drops of bromine solution in Carbon tetrachloride with the Hydrocarbon.	The reddish brown bromine solution gets decolourised.	No change is observed.

[2013]

33. (C) They can undergo both substitution as well as addition reactions.

[2013]



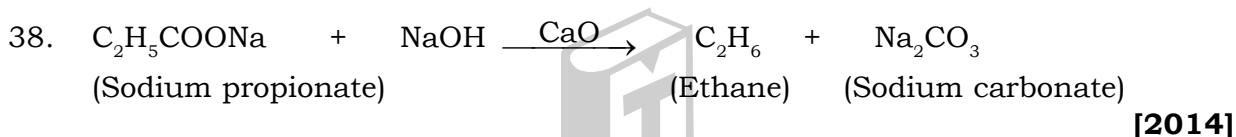


- (c) (i) Because methane is saturated hydrocarbon while ethene is an unsaturated hydrocarbon. Addition reactions are characteristic properties of unsaturated hydrocarbons.
- (ii) Ethyne is an unsaturated hydrocarbon with a triple covalent bond. Ethane is a saturated hydrocarbon and hence is less reactive than ethyne.
- (iii) Hydrocarbons are excellent fuels because they ignite easily at low temperature and liberate large amount of heat without producing harmful products. **[2013]**

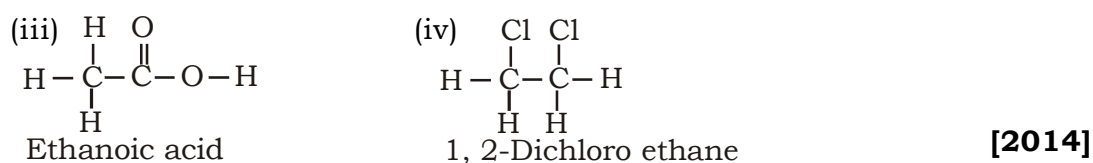
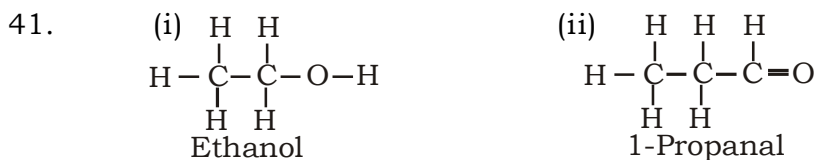
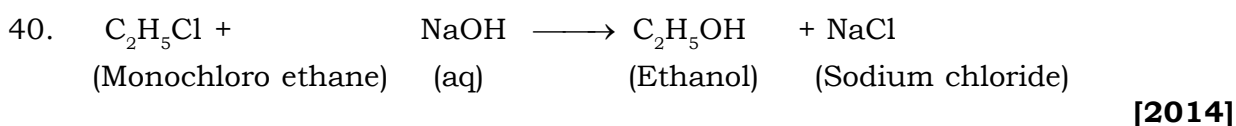
35. (D) ethyne **[2014]**

36. sodium ethoxide **[2014]**

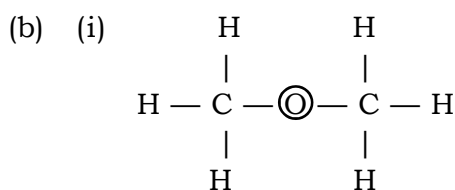
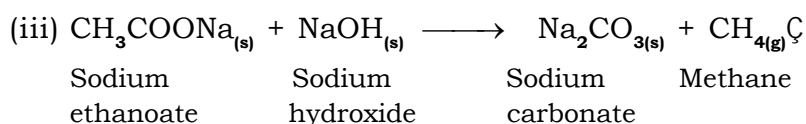
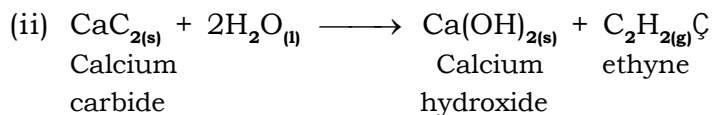
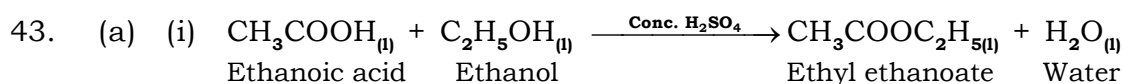
37. Ketones **[2014]**



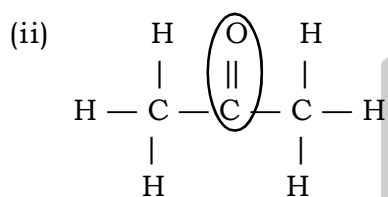
39. (i) In presence of catalyst like finely divided nickel, platinum, heating upto 300°C.
- (ii) Hot and concentrated alcoholic solution of potassium hydroxide.
- (iii) Platinum gauze catalyst at 800°C in presence of oxygen.
- (iv) Vanadium pentoxide as catalyst and temperature 450 - 500°C and 1-2 atm. pressure. **[2014]**



42. (C) They can undergo addition as well as substitution reactions **[2014]**



Functional Group-Ether



Functional Group-Ketone

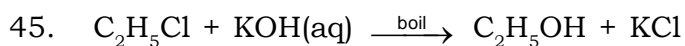


- (c) (i) Hydrogenation
 (ii) Methane (CH₄)
 (iii) Esterification
 (iv) Catenation
 (v) Dehydrohalogenation

[2015]

44. Hydrogenation

[2016]



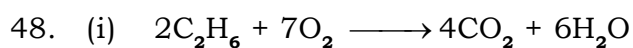
[2016]

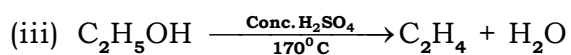
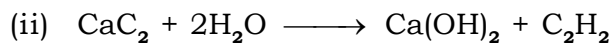
46. (i) Nickel or Platinum
 (ii) Addition reaction

[2016]

47. 1. Propene
 2. 2-Butyne
 3. Ethanal

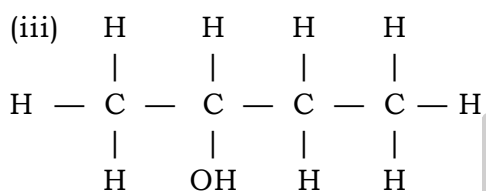
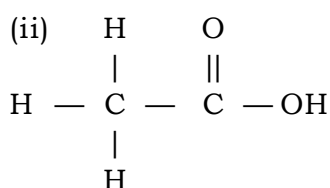
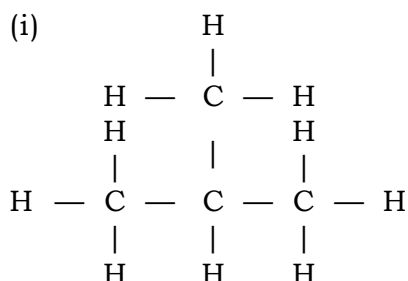
[2016]





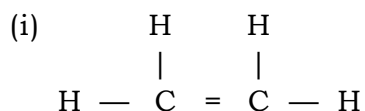
[2016]

49.

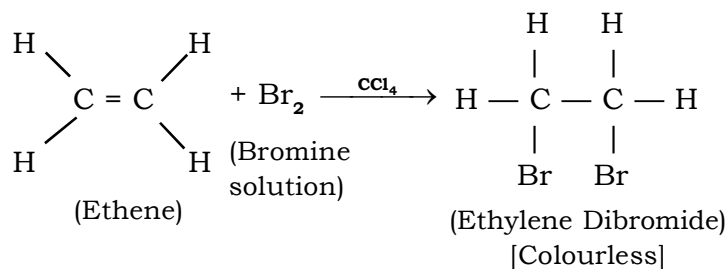


[2016]

50.



(ii) Bromine solution in CCl_4 has brown colour. When added dropwise to ethene, the brown colour of bromine is discharged, due to the formation of the colourless ethylene dibromide.



[2016]

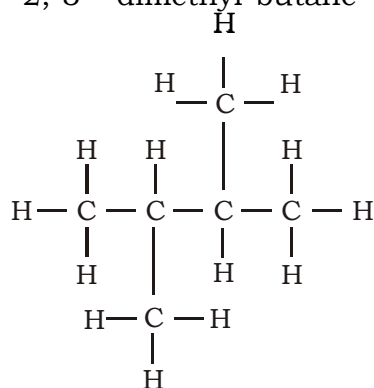
51. C_2H_6 [2017]

52. (C) alkyne [2017]

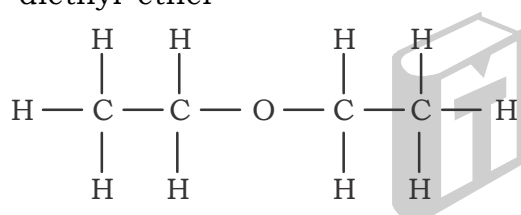
53. Carboxylic acid [2017]

54. $CH_3I + 2[H] \xrightarrow[\text{alcohol}]{Zn/Cu \text{ couple}} CH_4 + HI$ [2017]

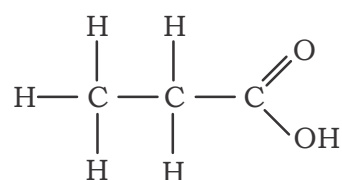
55. 1. 2, 3 - dimethyl butane



2. diethyl ether



3. Propanoic acid



56. (i) Recrystallization

(ii) Acetylene/ Propyne

(iii) Isomerism

(iv) Ketone

[2017]

[2017]

57. (i) $CH_3-CH_2-COONa + NaOH \xrightarrow[\Delta]{CaO} C_2H_6 + Na_2CO_3$
 Sodium Ethane Sodium
 Propionate hydroxide carbonate

(ii) $CH_3CH_2Br + alc. KOH \xrightarrow{\Delta} CH_2 = CH_2 + KBr + H_2O$
 Bromo Ethene
 ethane

[2017]

