

Ogundeji Damilola Daniel

19/MH501/296

Medicine & Surgery

CHM 102

1)

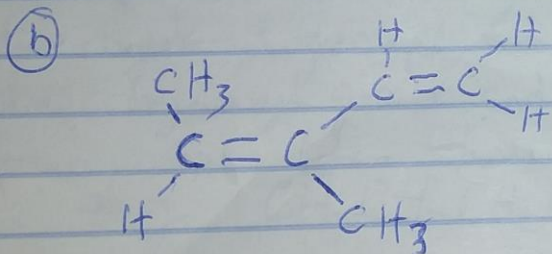
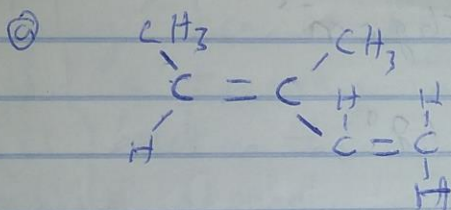
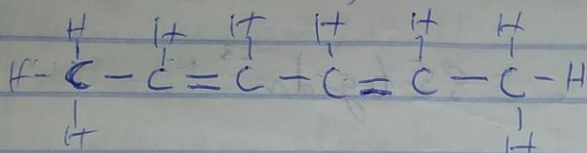
(i) OH

(ii) NH₂

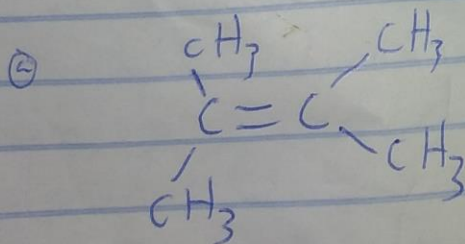
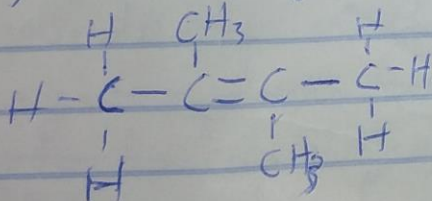
(iii) OH

2)

(i) Hexa-2,4-diene

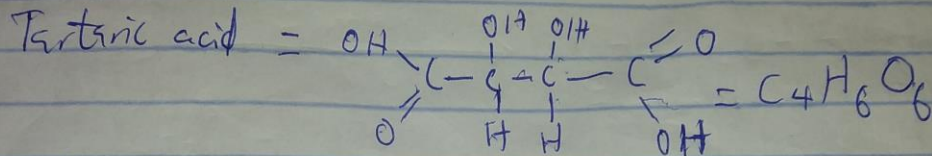


(ii) 2,3-Dimethylbut-2-ene



$$2 \text{ Concentration (mol dm}^{-3}\text{)} = \frac{\text{mass conc (g dm}^{-3}\text{)}}{\text{molar mass (g mol}^{-1}\text{)}}$$

$$[\alpha]_D^{25} = \frac{\alpha}{c \cdot l}$$



$$\text{molar mass} = 150 \text{ g/mol}$$

$$0.856 \text{ g} \longrightarrow 10 \text{ cm}^3$$

$$x \text{ g} \longrightarrow 1000 \text{ cm}^3$$

$$x = \frac{1000 \times 0.856}{10} = 85.6 \text{ g dm}^{-3}$$

$$\text{Conc in g cm}^{-3} = \frac{85.6}{1000} = 0.0856 \text{ g cm}^{-3}$$

$$[\alpha]_D^{25} = \frac{\alpha}{c \cdot l} = \frac{+1.0}{0.0856} = 11.68^\circ$$

