iv)   Moles of solution B = $\dfrac{50 \times 0.7}{1000} = 0.035$

v) $0.035 - 0.03036 = 0.00464$

vi) $Mg_{(s)} + 2HCl_{(aq)} \rightarrow MgCl_{s\,(aq)} + H_{2\,(g)}$
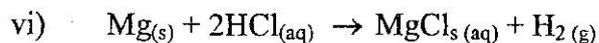
$\dfrac{0.00464}{2} = 0.00232$

c)   Heat change, $\Delta H = 50 \times 4.2 \times 3.3 = 693$ joules

0.00232 moles produce 693 joules

1 mole produces $\dfrac{693}{0.00232 \times 1000} = 298.706$ kj

Note the units must be shown and should be correct.

9.4 CONCLUSION

It is to be noted that there has been an improvement in performance in Chemistry. This would imply that measures that have been suggested in the previous reports have been taken seriously. However it is also noted that in some schools there are no laboratories and if some structures in the name of laboratories exist, there are no apparatus and chemicals. Candidates are therefore not given the necessary practical exposure. This trend must stop immediately.

Sciences are about investigations/experiments in order to get relevant data/observations hence making correct inferences. Without the apparatus and chemicals, no investigations can be conducted hence the benefits the student and the country would gain from the study of chemistry would be lost.