

- (ii) Which of your results for the weight of the wire reel would you expect to give the greatest error? Explain your reasoning. [2]

.....

.....

.....

- (iii) Use your results to calculate an average value for the weight of the reel of wire. [2]

.....

.....

- (d) The uncertainty,  $\text{Unc}(W)$  in the value for the wire reel's weight can be calculated using the expression

$$\text{Unc}(W) = \frac{W_{\text{max}} - W_{\text{min}}}{2}$$

where  $W_{\text{max}}$  and  $W_{\text{min}}$  are the maximum and minimum values of the wire's weight  $W$ .

- (i) Calculate the uncertainty in your result. [1]

.....

.....

.....

- (ii) Your results for this experiment can be said to be reliable if they are all within 5% of the average value. Comment on the reliability of your results. [2]

.....

.....

.....

- (iii) How could you adapt this experiment to further improve its reliability? [1]

.....

.....

.....