

**ARITHMETIC (Q 1, PAPER 1)**

**2003**

- 1 (a) A train leaves Cork at 09:05 and arrives in Dublin at 12:25.  
The distance from Cork to Dublin is 250 km.  
Find the average speed of the train in km/h.
- (b) The present reading on the electricity meter in John's house is 63792 units. The previous reading was 62942 units.
- (i) How many units of electricity were used since the previous reading?
- (ii) What is the cost of the electricity used, if electricity costs 9.52 cent per unit?
- (iii) A standing charge of €7.00 is added and VAT is then charged on the full amount. If John's total bill is €98.91, calculate the rate at which VAT is charged.
- (c) (i) When using a calculator to add 1.7 and 2.2, a student strikes the multiplication key instead of the addition key.  
Calculate the percentage error in the result, correct to one decimal place.
- (ii) What sum of money invested at 6% per annum compound interest will amount to €5000 in 7 years?  
Give your answer correct to the nearest euro.

**ANSWERS**

- 1 (a) 75 km/hr
- (b) (i) 850                      (ii) €80.92                      (iii) 12.5%
- (c) (i) 4.1%                      (ii) €3,325