1.3 ***The first answer not given to two decimal places is not awarded the final (A1). Incorrect rounding is not penalized thereafter.***

(a) $37\,500 \times 0.7234$ ***(M1)***

$= 27127.50$ ***(A1)(G2)*** ***[2 marks]***

(b) 6947.50 ***(A1)*****(ft)*****(G1)*** ***[1 mark]***

Note: Follow through from part (a) irrespective of whether working is seen.

(c) $\dfrac{6947.50 \times 4.5 \times 4}{100} + 6947.50$ ***(M1)(M1)***

Note: Award ***(M1)*** for their correctly substituted simple interest formula, ***(M1)*** for addition of their part (b).

$= 8198.05$ ***(A1)*****(ft)*****(G2)*** ***[3 marks]***

Note: Follow through from part (b).

(d) 27127.50×0.91 ***(A1)(M1)***

Note: Award ***(A1)*** for 0.91 seen or equivalent, ***(M1)*** for their 27 127.50 multiplied by 0.91

OR

$27127.50 - 0.09 \times 27127.50$ ***(A1)(M1)***

Note: Award ***(A1)*** for 0.09×27127.50 seen, and ***(M1)*** for $27127.50 - 0.09 \times 27127.50$.

$= 24\,686.03$ ***(A1)*****(ft)*****(G2)*** ***[3 marks]***

Note: Follow through from part (a).

continued...

Question 1.3 continued

(e) $27127.50\times\left(1-\frac{9}{100}\right)^4$ ***(M1)(A1)*(ft)**

Notes: Award ***(M1)*** for substituted compound interest formula, ***(A1)*(ft)** for correct substitution.
Follow through from part (a).

OR

$27127.50\times(0.91)^4$ ***(M1)(A1)*(ft)**

Notes: Award ***(M1)*** for substituted geometric sequence formula, ***(A1)*(ft)** for correct substitution.
Follow through from part (a).

OR (lists (i))

24686.03, 22464.28…, 20442.50…, 18602.67… ***(M1)(A1)*(ft)**

Notes: Award ***(M1)*** for at least the 2nd term correct (calculated from their (a) × 0.91). Award ***(A1)*(ft)** for four correct terms (rounded or unrounded).
Follow through from part (a).
Accept list containing the last three terms only (24686.03 may be implied).

OR (lists(ii))

$27127.50-(2441.47...+2221.74...+2021.79...+1839.82...)$ ***(M1)(A1)*(ft)**

Notes: Award ***(M1)*** for subtraction of four terms from 27127.50.
Award ***(A1)*** for four correct terms (rounded or unrounded).
Follow through from part (a).

= 18 602.67 ***(A1)***
= 18 600 ***(AG)*** ***[3 marks]***

Note: The final ***(A1)*** is not awarded unless both the unrounded and rounded answers are seen.

continued...

Question 1.3 continued

(f) $\dfrac{18\,600 + 8198.05}{0.8694} - 30\,500$ ***(M1)(M1)(M1)***

Note: Award ***(M1)*** for their answer to part (c) added to 18 600, ***(M1)*** for $\dfrac{18600 + (any\ value)}{0.8694}$, ***(M1)*** for the *difference* between $\dfrac{18600 + (any\ value)}{0.8694}$ and 30 500.

OR

$$\frac{18\,600 + 8198.05 - 30\,500 \times 0.8694}{0.8694}$$ ***(M1)(M1)(M1)***

Note: Award ***(M1)*** for their answer to part (c) added to 18 600, ***(M1)*** for *difference* between (their answer to part (c) added to 18 600) and $(30\,500 \times 0.8694)$, ***(M1)*** for dividing the resultant value by 0.8694.
If the value for the exchange rate used is 0.7234, then award, at most, ***(M1)(M0)(M1)***.

= 323.61 ***(A1)*****(ft)*****(G3)*** ***[4 marks]***

Note: Follow through from their part (c).
Award ***(A1)*****(ft)** for final answer provided it is positive, and dependant on all three method marks.

Total: [16 marks]