

Question 14**(11 marks)**

Patrick has retired and invested his lump sum superannuation payout of \$717 850 at a rate of 5.7% per annum compounded monthly. He begins the investment strategy from 1 January.

- (a) Patrick will receive \$4500 at the end of each month for general living expenses and will also receive a further \$4000 at the end of each year for an annual holiday.
- (i) Identify this type of investment account. (1 mark)
- (ii) Determine the balance in the account at the end of the first year. (4 marks)
- (iii) Determine the balance in the account at the end of the second year. (3 marks)

- (b) When Patrick retired, he also considered the option of setting up a perpetuity with his superannuation payout still at 5.7% per annum compounded monthly. Calculate the quarterly payments Patrick would have received with this perpetuity in place. (3 marks)