

Question 14**(11 marks)**

Ravi retired at the beginning of the month, with a superannuation balance of \$945 864. He has a written guarantee of a 7.5% per annum return on his superannuation with interest added at the end of each month. Ravi will receive an annuity of \$3200 paid at the end of each fortnight.

Ravi has also committed to purchasing a new car for a price of \$37 000. There is a 12-month waiting period for the delivery of the car and he plans to pay for the car by withdrawing the cost from his superannuation account at time of delivery, when payment is due.

(a) Calculate the balance in the superannuation account at the end of two years. (6 marks)

(b) After 15 years of retirement Ravi expects to have a less active lifestyle and his living expenses will not be as high. He also understands that the balance of his superannuation needs to last for his remaining years. Ravi decides the most suitable plan for him is to place the balance of his superannuation into a perpetuity with a fortnightly payment.

Assuming the 7.5% interest rate is maintained, what fortnightly amount can Ravi expect from the perpetuity? (5 marks)