

Name :

Student ID :

Question 1

A 20 – year loan of 1000 is repaid with payments at the end of each year. Each of the first ten payments equals 150% of the amount of interest due. Each of the last ten payments is X. The lender charges interest at an annual effective rate of 10%. Calculate X.

Question 2

David can receive one of the following two payment streams:

- (i) 100 at time 0, 200 at time n years, and 300 at time $2n$ years*
- (ii) 600 at time 10 years*

At an annual effective interest rate of i , the present values of the two streams are equal.

Given $v^n = 0.76$,

calculate i .