

246. For a special single premium 2-year endowment insurance on (x) , you are given:

(i) Death benefits, payable at the end of the year of death, are:

$$b_1 = 3000$$

$$b_2 = 2000$$

(ii) The maturity benefit is 1000.

(iii) Expenses, payable at the beginning of the year:

(a) Taxes are 2% of the gross premium.

(b) Commissions are 3% of the gross premium.

(c) Other expenses are 15 in the first year and 2 in the second year.

(iv) $i = 0.04$

(v) $p_x = 0.9$

$$p_{x+1} = 0.8$$

Calculate the single gross premium using the equivalence principle.

(A) 670

(B) 940

(C) 1000

(D) 1300

(E) 1370