

298. For a fully discrete 3-year term life insurance on (50) you are given:

- (i) The death benefit is 5000.
- (ii) An extract from a mortality table

x	q_x
50	0.005
51	0.006
52	0.007

- (iii) The rate of interest is based on the yield curve at $t = 0$.

You are also given the following information based on the yield curve at $t = 0$:

t	Annual forward rate of interest
0	0.030
1	0.032
2	0.035

Calculate the second moment of the present value of the death benefit random variable.

- (A) 392,000
- (B) 406,000
- (C) 419,000
- (D) 432,000
- (E) 446,000