141. Z is the present-value random variable for a whole life insurance of b payable at the moment of death of (x).

You are given:

(i) $\delta = 0.04$

(ii) $\mu_{x+t} = 0.02, \quad t \geq 0$

(iii) The single benefit premium for this insurance is equal to Var(Z).

Calculate b.

(A) 2.75

(B) 3.00

(C) 3.25

(D) 3.50

(E) 3.75