

- 178.** A special whole life insurance of 100,000 payable at the moment of death of  $(x)$  includes a double indemnity provision. This provision pays during the first ten years an additional benefit of 100,000 at the moment of death for death by accidental means.

You are given:

(i)  $\mu_{x+t}^{(\tau)} = 0.001, \quad t \geq 0$

(ii)  $\mu_{x+t}^{(1)} = 0.0002, \quad t \geq 0$ , is the force of decrement due to death by accidental means.

(iii)  $\delta = 0.06$

Calculate the single benefit premium for this insurance.

- (A) 1640  
(B) 1710  
(C) 1790  
(D) 1870  
(E) 1970