

**119.** For a special fully continuous whole life insurance on  $(x)$ :

- (i) The level premium is determined using the equivalence principle.
- (ii) Death benefits are given by  $b_t = (1+i)^t$  where  $i$  is the interest rate.
- (iii)  $L$  is the loss random variable at  $t = 0$  for the insurance.
- (iv)  $T$  is the future lifetime random variable of  $(x)$ .

Which of the following expressions is equal to  $L$ ?

(A) 
$$\frac{(v^T - \bar{A}_x)}{(1 - \bar{A}_x)}$$

(B) 
$$(v^T - \bar{A}_x)(1 + \bar{A}_x)$$

(C) 
$$\frac{(v^T - \bar{A}_x)}{(1 + \bar{A}_x)}$$

(D) 
$$(v^T - \bar{A}_x)(1 - \bar{A}_x)$$

(E) 
$$\frac{(v^T + \bar{A}_x)}{(1 + \bar{A}_x)}$$