

**121.** Lee, age 63, considers the purchase of a single premium whole life insurance of 10,000 with death benefit payable at the end of the year of death.

The company calculates benefit premiums using:

- (i) mortality based on the Illustrative Life Table,
- (ii)  $i = 0.05$

The company calculates gross premiums as 112% of benefit premiums.

The single gross premium at age 63 is 5233.

Lee decides to delay the purchase for two years and invests the 5233.

Calculate the minimum annual rate of return that the investment must earn to accumulate to an amount equal to the single gross premium at age 65.

- (A) 0.030
- (B) 0.035
- (C) 0.040
- (D) 0.045
- (E) 0.050