

296. For two universal life insurance policies issued on (60) , you are given:

- (i) Policy 1 has a level death benefit of 100,000.
- (ii) Policy 2 has a death benefit equal to 100,000 plus the account value at the end of the month of death.

For each policy:

- (i) Death benefits are paid at the end of the month of death.
- (ii) Account values are calculated monthly.
- (iii) Level monthly premiums of G are payable at the beginning of each month.
- (iv) Mortality rates for calculating the cost of insurance:
 - a. Follow the Illustrative Life Table.
 - b. Assume UDD for fractional ages.
- (v) Interest is credited at a monthly effective rate of 0.004.
- (vi) The interest rate used for accumulating and discounting in the cost of insurance calculation is a monthly effective rate of 0.004.
- (vii) Level expense charges of E are deducted at the beginning of each month.

At the end of the 36th month the account value for Policy 1 equals the account value for Policy 2.

Calculate the ratio of the account value for Policy 1 at the end of the 37th month to the account value of Policy 2 at the end of the 37th month.

- (A) 1.0015
- (B) 1.0035
- (C) 1.0055
- (D) 1.0075
- (E) 1.0095