

16. For a special fully discrete whole life insurance on (40):

- (i) The death benefit is 1000 for the first 20 years; 5000 for the next 5 years; 1000 thereafter.
- (ii) The annual benefit premium is $1000P_{40}$ for the first 20 years; $5000P_{40}$ for the next 5 years; π thereafter.
- (iii) Mortality follows the Illustrative Life Table.
- (iv) $i = 0.06$

Calculate ${}_{21}V$, the benefit reserve at the end of year 21 for this insurance.

- (A) 255
- (B) 259
- (C) 263
- (D) 267
- (E) 271