

105. For students entering a college, you are given the following from a multiple decrement model:

- (i) 1000 students enter the college at $t = 0$.
- (ii) Students leave the college for failure (1) or all other reasons (2).
- (iii) $\mu_{x+t}^{(1)} = \mu \quad 0 \leq t \leq 4$
 $\mu_{x+t}^{(2)} = 0.04 \quad 0 \leq t < 4$
- (iv) 48 students are expected to leave the college during their first year due to all causes.

Calculate the expected number of students who will leave because of failure during their fourth year.

- (A) 8
- (B) 10
- (C) 24
- (D) 34
- (E) 41