

91. You are given:

(i) The survival function for males is $S_0(t) = 1 - \frac{t}{75}$, $0 \leq t \leq 75$.

(ii) Female mortality follows $S_0(t) = 1 - \frac{t}{\omega}$, $0 \leq t \leq \omega$.

(iii) At age 60, the female force of mortality is 60% of the male force of mortality.

For two independent lives, a male age 65 and a female age 60, calculate the expected time until the second death.

(A) 4.33

(B) 5.63

(C) 7.23

(D) 11.88

(E) 13.17