

**24.** For a block of fully discrete whole life insurances of 1 on independent lives age  $x$ , you are given:

(i)  $i = 0.06$

(ii)  $A_x = 0.24905$

(iii)  ${}^2A_x = 0.09476$

(iv)  $\pi = 0.025$ , where  $\pi$  is the gross premium for each policy.

(v) Losses are based on the gross premium.

Using the normal approximation, calculate the minimum number of policies the insurer must issue so that the probability of a positive total loss on the policies issued is less than or equal to 0.05.

(A) 25

(B) 27

(C) 29

(D) 31

(E) 33