**164.** For a collective risk model the number of losses, N, has a Poisson distribution with $\lambda = 20$. The common distribution of the individual losses has the following characteristics:

(i) $\mathrm{E}[X] = 70$

(ii) $\mathrm{E}[X \wedge 30] = 25$

(iii) $\Pr(X > 30) = 0.75$

(iv) $\mathrm{E}\left[X^2 \middle| X > 30\right] = 9000$

An insurance covers aggregate losses subject to an ordinary deductible of 30 per loss.

Calculate the variance of the aggregate payments of the insurance.

(A) 54,000

(B) 67,500

(C) 81,000

(D) 94,500

(E) 108,000