

**11.** A company provides insurance to a concert hall for losses due to power failure. You are given:

- (i) The number of power failures in a year has a Poisson distribution with mean 1.
- (ii) The distribution of ground up losses due to a single power failure is:

$x$	<u>Probability of <math>x</math></u>
10	0.3
20	0.3
50	0.4

- (iii) The number of power failures and the amounts of losses are independent.
- (iv) There is an annual deductible of 30.

Calculate the expected amount of claims paid by the insurer in one year.

- (A) 5
- (B) 8
- (C) 10
- (D) 12
- (E) 14