

DMPT (Quiz 1) SEC A (SET 1) Name:

Roll No:

Marks:15

Answer all questions. Each carries 5 marks

1. Given that X has the distribution $\text{Bin}(20, 0.45)$. Calculate $P(X < 19)$, $E[4X+5]$, $\text{Var}[4X-5]$
2. A random sample of four policy holders is taken from a group of 8, comprising 3 men and 5 women determine probability mass function, calculate $F_x(3)$
3. The probability of getting no misprint in a page is e^{-4} . Determine the probability that a page of a book contains more than 2 misprints

DMPT (Quiz 1) SEC A (SET 2) Name:

Roll No:

Marks:15

Answer all questions. Each carries 5 marks

1. Given that X has the distribution $\text{Bin}(20, 0.65)$. Calculate $P(X > 19)$, $E[3X - 2]$, $\text{Var}[3X - 2]$
2. A random sample of four policy holders is taken from a group of 8, comprising 3 men and 5 women determine probability mass function, calculate $F_x(3)$
3. The probability of getting no misprint in a page is e^{-6} . Determine the probability that a page of a book contains at least 2 misprints

DMPT (Quiz 1) SEC B (SET 1) Name:

Roll No:

Marks:15

Answer all questions. Each carries 5 marks

1. Given that X has the distribution $\text{Poi}(20)$. Calculate $P(X < 19)$, $E[4X+5]$, $\text{Var}[4X-5]$
2. A fair coin is tossed 3 times. Let X be the random variable representing the total number of heads find the probability mass function and $F_x(2)$
3. The probability of getting no misprint in a page is 2 times the probability of getting 1 misprint. Determine the probability that a page of a book contains more than 2 misprints.

DMPT (Quiz 1) SEC B (SET 2) Name:

Roll No:

Marks:15

Answer all questions. Each carries 5 marks

1. Given that X has the distribution $\text{Poi}(20)$. Calculate $P(X > 19)$, $E[3X+2]$, $\text{Var}[3X-2]$
2. A fair coin is tossed 3 times. Let X be the random variable representing the total number of tails find the probability mass function and $F_x(3)$
3. The probability of getting no misprint in a page is 2 times the probability of getting 1 misprint. Determine the probability that a page of a book contains at least 2 misprints.