Unit - V

5. a) ABCD toss a coin in succession on the understanding that the first one to throw a head wins. Find their respective chances of wining. **(8)**

b) The frequency of accidents per day in Jaipur city is given in the following table. Calculate the mean number of accidents per day and compare with actual observations by using poisson distribution. (given $e^{-0.44} = .644$)

Accidents per day :	0	1	2	3	4
Frequency :	211	90	19	5	0

(8)

OR

5. a) If a coin is tossed 5 times, find out the probability distribution for the number of heads obtained. **(8)**

b) For $-\infty < x < \infty$ and probability density $f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$.

Show that the total probability is 1. **(8)**
