ASSIGNMENT

Q1. Define random variable.

Q2. Define discrete random variable.

Q3. Define marginal distribution of a random variable X.

Q4. Define conditional probability distribution of X given Y=y.

Q5. A bivariate discrete probability distribution is given as p(x, y) =

A(x + y), x = 0, 1, 2 and y = 0, 1, 2; find constant A.

Q6. State discrete uniform distribution and give its mean and variance.

Q7. If variance of the discrete uniform distribution is find P(x=7).

Q8. Let X follows binomial distribution with parameters n = 5 and p =

0.4. Find the probability of (i) no success (ii) at least two success.

Q9. He mean and variance of a binomial distribution are 2 and 8 respectively. Find P(x=0).

Q10. Let X denotes the printing mistakes per page, follows Poisson distribution with mean 2. Find the probability of (i) no mistakes (ii) at the most two mistakes in a randomly selected page.