ASSIGNMENT

FOR 3RD Semester 2021 (CBC Honors Eco-HC3036: Statistical methods for Economics)

ASSIGNMENT 1:

a. What is binomial distribution? What are its main features? For a binomial distribution mean = 7 and variance = 11. Give your comment whether the statement is right or wrong.   3+4+3=10

b. What do you mean by normal distribution? Write different properties and importance of normal distribution.   2+5+3=10

c. If a random variable X follows the Poisson distribution such that

$P(x=1) = P(x=2)$, find the mean of the distribution.   5

ASSIGNMENT 2:

a. Define distribution function of a random variable and its important properties.   5

b. Define probability mass function and probability density function. 5

c. Define random variable. Distinguish between a discrete and continuous random variable.   1+4=5

d. Explain the notion of a joint distribution of two random variables if

$F(x, y)$ be the joint distribution function of x and y, what will be the distribution functions for the marginal distribution of x and y?   5

e. Define probability mass function (pmf) and probability density function (pdf) of joint distribution of two random variables   5

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