GURUDAS COLLEGE

STATISTICS [General]   Paper-CC2 /GE2

B.Sc. 2nd Semester, July 2021

Internal Assessment Exam

F.M=10   Time-30 minutes

Answer any 10 questions.   (1x10)

1. If P(B) = 1/2 and P(B-A) = 1/3, find P(A/B).
2. Define mutually exclusive events.
3. Write the sample space when 3 coins are tossed.
4. An urn contains 5 red, 2 blue, 4 green and 3 yellow balls. One ball is drawn at random. What is the probability that the ball drawn is red or green?
5. If two dice are thrown, what is the probability that the sum is 8?
6. Give the points of inflexion of the normal distribution with mean 30 and variance 6.
7. Define a standard normal variable and write its (pdf)probability density function.
8. If $X \sim N(0,1)$ with $P(0 \le X \le 1) = 0.3413$. Find $P(X > -1)$
9. What is the CDF of normal distribution?
10. Write down the coefficient of variation of Poisson distribution with mean 2.
11. Write down the condition whenever the skewness of binomial distribution is zero.
12. Comment on the following, giving examples if possible: 'Variance of a random variable is 5 and its mean does not exist.'
13. Define expectation of random variable.
14. Write down TRUE/ FALSE: Given a continuous random variable X with pdf $f(x)$, then $f(x)$ cannot exceed unity.
15. Suppose X is random variable. Is |X| random variable? Why?