	Answer All Question
1.	Explain the Sample Space with mathematical expression.
2.	Explain the difference between moment and central moment for a single random variable.
3.	Explain the concept of expected value with mathematical expression.
4.	List and describe the different types of moments in probability theory and statistics.
5.	Explain the Central Limit Theorem with respect to Equal Distributions
6.	Explain the condition for Conditional Probability.
7.	Explain the Binomial Distribution with example.
8.	Explain the mean of two random variable.
9.	Calculate the variance of a random variable by subtracting the square of the mean from the expected value of the squared random variable.
10.	Explain the Mutually exclusive events with mathematical expression.
11.	Explain in your own words what moments about the origin are and how they help describe a random variable.
12.	Calculate the first-order moment about the origin (mean)
13.	Given a random variable X that represents the number of heads in two-coin tosses, calculate the second moment about the origin.
14.	Explain the characteristics of two random variable.
15.	Explain the conditions that a function must satisfy to be considered a random variable.
16.	Expalin the definition of a random variable and explain its purpose in the field of mathematics.
17.	Explain the Central Limit Theorem with respect to unequal distribution.
18.	Explain the Joint Moments about the Origin with mathematical expression.
19.	Explain the Axiomatic definition of probability with properties.
20.	Explain the Joint Central Moments.
21.	Explain the Chebyshev's inequality.
22.	Calculate the characteristic function related to the probability density function.
23.	Explain the Discrete Random Variable with example.
24.	Explain the Joint Random Variable with suitable example.
25.	Explain the non-monotonic decreasing Transformations of Continuous Random Variable with mathematical expression.
26.	Explain the joint moments about the origin different from joint central moments? Provide examples of each.
27.	Explain the difference between moment about origin and mean.
28.	Explain the monotonic increasing transformation of random variable with example.
29.	Explain the sum of 2-random variable and given the example of discreate random variable.
30.	Explain the normal distribution and standard normal distribution.