

Basic Statistics – II

Important Questions

Short Answer Type

1. Define Random Variable and Types of Random Variable.
2. Explain about the probability function for Random Variables.
3. Explain about the distribution function of a Random Variable and its properties.
4. Define Mathematical Expectation. Express the moments in terms of expectations.
5. Define Covariance using Expectation.
6. State the Addition theorem of Mathematical Expectation.
7. State the Multiplication theorem of Mathematical Expectation.
8. Define mgf
9. Define cf.
10. Define cgf.
11. Define pgf.
12. Define Bernoulli Distribution.
13. Define Binomial Distribution.
14. Define Poisson Distribution.
15. Define Uniform Distribution.
16. Define Normal Distribution.
17. Define Exponential Distribution.
18. Define Bivariate Data.
19. Define Correlation and types of correlation.
20. Define Karl Pearson's Correlation Coefficient.
21. Define Scatter Diagram.
22. Define Rank Correlation.
23. Define Regression Analysis.
24. Define Chi-Square Distribution.
25. Define Student's t-distribution.
26. Define F – Distribution.
27. Define Point Estimation.
28. Define Critical Region.

29. Define Type – I and Type – II Errors

30. State Neyman Pearson's Lemma.

Long Answer Type:

31. Explain about mgf. State its Properties.

32. Explain about cgf. State its Properties.

33. Explain about cf. State its Properties.

34. Explain about pgf. State its Properties.

35. Define Bernoulli Distribution. State its Properties.

36. Define Binomial Distribution. State its Properties.

37. Define Poisson distribution. Derive the mean and variance of Poisson distribution. Give its properties.

38. Define Uniform Distribution. State its Properties.

39. Explain about Normal and Standard Normal Distributions. What are the Chief Characteristics of Normal Distribution.

40. Define Exponential Distribution. State its Properties.

41. Define Correlation and its coefficient. State its properties.

42. Define Regression and its coefficients. State its properties.

43. Explain Correlation Vs Regression.

44. Explain about Curve fitting and Principle of Least Squares. Derive the fitting of a Straight Line.

45. Define population, sample, parameter, statistic, sampling distribution, standard error.

46. Define chi-square distribution. State its applications and properties.

47. Define t - distribution. State its applications and properties.

48. Define F - distribution. State its applications and properties.

49. What is Point Estimation? Explain about Criteria of a Good Estimator.

50. Explain about different concepts of testing statistical hypothesis.

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