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| QP Code: D143688 | Total Pages: 1 | Name: |
| | | Register No: |
| FOURTH SEMESTER (CUFYUGP) DEGREE EXAMINATION, APRIL 2026 | | |
| ECONOMICS/DEVELOPMENT ECONOMICS/ECONOMETRICS AND DATA MANAGEMENT/ECONOMICS WITH FOREIGN TRADE /ECONOMICS WITH ISLAMIC FINANCE | | |
| ECO4CJ205 Analytical Tools for Economics - II | | |
| 2024 Admission Onwards | | |
| Maximum Time: 2 Hours | | Maximum Marks: 70 |
| Section A | | |
| All Questions can be answered. Each Questions carries 3 marks (Ceiling: 24 marks) | | |
| 1 | Distinction between null Hypothesis and alternative hypothesis. | |
| 2 | Evaluate the importance of sampling distribution in statistical inference. | |
| 3 | What is a simple hypothesis in statistics? | |
| 4 | Explain sample point and sample space. | |
| 5 | What is interval estimation in statistics? | |
| 6 | Define exponential distribution. Write down any two applications in statistical analysis. | |
| 7 | Critically examine the limitations of point estimation. | |
| 8 | Distinction between Sample Statistic and Population Parameter. | |
| 9 | What is a large sample in statistics? | |
| 10 | What is the standard error in statistics? | |
| Section B | | |
| All Questions can be answered. Each Questions carries 6 marks (Ceiling: 36 marks) | | |
| 11 | What are the important properties of the t-distribution? | |
| 12 | What is the Sign Test in statistics and when is it used? | |
| 13 | A population has mean $\mu = 50$ and standard deviation $\sigma = 10$. If a sample of size $n = 36$ is taken, find the probability that the sample mean is greater than 53. | |
| 14 | What is the distribution of the sample mean in statistics? | |
| 15 | Distinguish between simple and composite hypotheses in statistics. | |
| 16 | Examine Bayes theorem and state its applications in statistical analysis. | |
| 17 | Distinguish between small sample and large sample in statistics. Explain with reference to their size, distribution, and reliability. | |
| 18 | Explain the Chi-Square Test of Goodness of Fit and its main applications. | |
| Section C | | |
| Answer any one. Each question carries 10 marks (1x10= 10 marks). | | |
| 19 | Evaluate the importance and application of discrete probability distribution in real life scenario. Examine the key characteristics of any two discrete distributions. | |
| 20 | Explain the Ordinary Least Squares (OLS) method and discuss its main assumptions and importance in economic analysis. | |