G.V.M.'s Gopal Govind Poy Raiturcar College of

Commerce and Economics, Ponda Goa

M.Com. Semester III End Examination, November 2023

COM 600 Research Methodology (OA-35)

Duration: 2 Hours   Total Marks: 40

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Instructions: 1) *This paper consists of **six** questions carrying **equal** marks.*
                 2) *Question No. **1** consists of **5 compulsory** questions of **2 marks each**.*
                 3) *Answer **any three** questions from Q. No. **2,3,4,5 and 6**.*
                 4) *Each question carries ten marks. Figures to the **right** indicate marks.*

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1. Answer the following questions in short.   **(5x2=10)**

    a) What is a Descriptive Study?

    b) Describe Normal Distribution.

    c) What are the situations in which the Chi-Square test finds application?

    d) What constitutes a research report?

    e) A researcher at the data collection stage has selected the first unit by randomly picking one number, which is 17, followed by 37, 57, 77, and 97 as the other units of the sample. Which sampling technique is used in the above case, and what is the benefit of using it?

2. Describe any four techniques that a researcher can use for the analysis of multivariate data.   **(10)**

3. a) How can you identify the research Gap?   **(05)**

    b) What are the benefits of using a Sample over a Population?   **(05)**

4. How does the implementation of Exploratory Factor Analysis and Confirmatory Factor Analysis contribute to more robust and evidence-based decision-making processes, particularly in research and business contexts?   **(10)**

5. Mr Shiva is conducting research on the "Dynamic Relationship between Gold Price and Stock Market Price in India". Provide information to Shiva on the following aspects of his research.

    a) Sources of data that can be used for this research.

    b) Tools for Data analysis.

c) Plagiarism Testing.

d) Publication in Journal.

6. a) Yokohama Ltd. finds that tyre life is normally distributed with a mean of 40,000 km and a standard deviation of 3000 km. With a change in production process and R&D, the company has developed a new tyre. A sample of 64 new samples has been selected. Yokohama has from that the mean life of these new tyres is 41,000 km. Can it be concluded that the new tyre is significantly better than the old one?   **(05)**

b) A random sample of 25 from a population gives the sample standard deviation of 8.5. Test the hypothesis under the Chi-Square test for Population Variance that the population standard deviation is 10 at 5% significance. (Critical Value of X^2 is 36.415)   **(05)**