

- (c) What assumptions should be met to conduct the tests mentioned in part (a) above. What are the alternatives available for the two tests if any of the assumptions is not met. (6)
5. (a) Design a questionnaire using a mix of open-ended, close-ended, and multiple-choice questions and scales to conduct a study on "The Influence of Mobile Banking on Consumer Behaviour." (10)
- (b) What are the key elements of a good questionnaire? Explain with examples. (8)
6. (a) A university researcher is preparing a report on the mental health of students. While conducting the literature review, she includes several studies without proper citation and paraphrasing. Some of the referenced materials are outdated. Later, she presents her findings at a seminar without acknowledging co-authors.
- (a) What are the do's and don'ts of conducting a literature review, as highlighted in this case? (6)
- (b) Identify three ethical violations in the research process and suggest corrective measures. (6)
- (c) Explain the importance of referencing and citation in academic writing. (6)

(700)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 6215 J

Unique Paper Code : 2923100015

Name of the Paper : Research Methodology (DSE)

Name of the Course : B.A. (H) Business Economics

Semester : VI

Duration : 3 Hours Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
 2. Attempt **five** questions in all. **Q1** is compulsory.
 3. **All** questions carry equal marks.
 4. Use of simple calculator is allowed.
 5. If any assumption is made while solving a problem, the same must be stated clearly.
1. Attempt the following as directed
 - (a) An ongoing study targets different villages in a district. The researcher randomly selects 5 villages and surveys 100 randomly selected households in each of the selected village. Explain which of the following sampling technique can the researcher apply and elucidate the reasons for the selection of technique by the researcher. Also discuss its advantages and disadvantages. (5)

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- (b) Indicate which of the four primary scales should be used to record the following variables. Also mention whether the variable is categorical or numerical. (2×3)
- (i) Age of a respondent
 - (ii) Position of athletes in a 100 m race
 - (iii) Religion of the respondents
- (c) Explain the following with examples wherever possible. (3.5×2)
- (i) Semantic Differential Scale
 - (ii) Validity of a research instrument
2. An NGO wants to evaluate the effectiveness of a rural employment scheme introduced in 2020. The team begins by defining their objectives and formulating research questions. They plan to use both qualitative interviews with villagers and quantitative analysis of employment data. They hypothesize that the scheme has significantly increased household incomes.
- (a) Identify the types of research being used and explain how both support the study. (6)
 - (b) What are the key elements of a good research design in this case? (6)
 - (c) Describe how the researchers should formulate and test a hypothesis in this context. (6)

3. A group of economics students is studying consumer spending habits in their city. They plan to collect primary data through online surveys and interview methods. Their questionnaire includes both nominal and ordinal scale questions, including demographic information and rating preferences on a 5-point likert scale.
- (a) Explain the types of data being collected with examples from the case. What is the other data collection technique. Explain the difference between the two. (6)
 - (b) Describe the advantages and disadvantages of both the online survey and interview method. (6)
 - (c) What are scales of measurement? Identify the types used in this study and justify their application. (6)
4. A pharmaceutical company conducts a study comparing the effectiveness of two different drugs. They collect health scores from 50 patients before and after administering each drug along with information on other parameters. They analyze the data using paired t- test and ANOVA, and later apply PCA to reduce data dimensions.
- (a) Explain paired t-test and ANOVA and how both apply here. (6)
 - (b) Define PCA and its role in this research. (6)