

M.Sc.- II (Computer Science) CBCS Pattern Semester-III  
**PSCST11 - Paper-III : Research Methodology and Operational Techniques**

P. Pages : 2

Time : Three Hours



**GUG/W/23/11234**

Max. Marks : 80

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- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagram and use supporting data whenever necessary.
  3. Avoid vague answer and write specific answer related to questions.

**Either:**

1. a) Define Research Methodology. Write down its objectives. 8
- b) Write in detail about Questionnaire Design. 8

**OR**

- c) Explain Data Collection Method in Research. 8
- d) Discuss the different problems encountered in research process. 8

**Either:**

2. a) Discuss steps criteria for sampling procedure. 8
- b) Write a short note on: - 8
  - i) Probability sampling like sample Random.
  - ii) Probability sampling like system Random.

**OR**

- c) What is the meaning and technique of Interpretation? 8
- d) What are the pre-writing consideration? Explain. 8

**Either:**

3. a) Write a note on testing of equality of variances. 8
- b) Explain two tailed and one tailed test with suitable examples. 8

**OR**

- c) Explain Null Hypothesis and alternative. 8
- d) What is the idea behind the test significance based upon T and F statistics. 8

**Either:**

- |           |    |  |          |
|-----------|----|--|----------|
| <b>4.</b> | a) | Define Chi-square, write its limitations.                        | <b>8</b> |
|           | b) | What do you mean by Yate's correction & explain its Application. | <b>8</b> |

**OR**

- |           |    |   |          |
|-----------|----|---|----------|
|           | c) | Explain one way ANOVA.  | <b>8</b> |
|           | d) | Write a short note on Analysis of variance with its methods.                          | <b>8</b> |
| <b>5.</b> |    | Attempt all the questions.  |          |
|           | a) | Write the features of Research.   | <b>4</b> |
|           | b) | Explain different types of Report writing.  | <b>4</b> |
|           | c) | Explain limitations of Hypothesis testing.  | <b>4</b> |
|           | d) | Elaborate Chi-square test as a test of goodness of fit and as a test of independence. | <b>4</b> |

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