

**M. SC. (APPLIED STATISTICS)
(MSCAST)**

Term-End Examination

December, 2024

MST-023 : RESEARCH METHODOLOGY

Time : 3 Hours

Maximum Marks : 50

Note : (i) *Question No. 1 is compulsory.*

(ii) *Attempt any **four** questions from the remaining question nos. 2 to 6.*

(iii) *Use of Scientific Calculator (non-programmable) is allowed.*

(iv) *Symbols have their usual meanings.*

1. State whether the following statements are True or False. Give reasons in support of your answers :

$$5 \times 2 = 10$$

- (a) Mixed method is a type of research that combines qualitative and quantitative research techniques into a single study.

- (b) 'Double-barred' questions ask two questions at one time and one very effective in survey research because it saves valuable time.
 - (c) If the researcher is providing answer choices for a survey question, they have to be both exhaustive and mutually exclusive.
 - (d) Open-ended questions are those that provide the answers for respondents to select from in their response to a survey question.
 - (e) When constructing a questionnaire, it is best to get the potentially threatening questions out of the way first at the start of the survey.
2. (a) What is research approach ? Also explain historical and survey approach. 5
- (b) Explain in detail the meaning of data in a study. Why is data needed in any statistical investigation ? 5
3. (a) Discuss the different steps involved in writing a report. 5
- (b) Discuss the basic component of research paper. 5

4. (a) Discuss nominal scale and its merits and demerits. 5
- (b) What are non-parametric methods of statistical analysis with their advantages and disadvantages ? 5
5. (a) Distinguish between sampling and non-sampling errors. 5
- (b) Explain different types of journals and importance of journals. 5
6. (a) Discuss Indian citation index. 5
- (b) Discuss the meaning of research design. 5

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