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Total No. of Pages: 02

Total No. of Questions: 08

Ph.D in Faculty of Applied Science (Computer Application) /
Ph.D in Faculty of Engineering (CSE)
RESEARCH METHODOLOGY

M.Code: 77392

Time: 3 Hrs. Max. Marks: 100

INSTRUCTIONS TO CANDIDATES:

- 1. Attempt any FIVE questions out of EIGHT questions.
- 2. Each question carry TWENTY marks.
- Q1. a) "Research methods are tools for decision making in the hands of a researcher". Justify the statement.
 - b) Is pre-testing questionnaire essential for a questionnaire development process? Why there is a general tendency of the researchers to avoid the pre-testing questionnaire?
- Q2. What are different survey methods available for launching a research study? Which method is applicable at what situation? Explain by citing examples.
- Q3. a) What is Standard deviation? Discuss the advantages and limitations of Standard Deviation.
 - b) What is t-test? Discuss in detail the conceptual framework and application of t-test.
- Q4. a) What do you understand by ANOVA? Discuss the applications and assumptions of ANOVA.
 - b) Discuss the conceptual framework of chi-square test. Under what circumstances chi-square test of independencies is used?
- Q5. Write sort note on:
 - a) Completely randomized design
 - b) Randomized Block design
 - c) Latin Square design
 - d) Factorial design

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- Q6. a) What is observation? What are the advantages and disadvantages of observation techniques?
 - b) What is content analysis and what is the major reason for using this as an observation method?
- Q7. a) What are sampling and non-sampling errors and how can researcher control them?
 - b) What are the approaches to be considered when a researcher takes a decision about logical order of questioning? Explain by citing examples.

Q8. Write note on:

- a) Purpose of research proposal.
- b) Format of research report.

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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