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Library
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BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – MCA-2025

Course Name – Research Methodology and Ethics

Course Code - MCA20407

(Semester II)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) What is the primary meaning of research?
 - a) Guessing facts
 - b) Systematic investigation
 - c) Casual observation
 - d) Personal opinion
- (ii) Which of the following is an objective of research?
 - a) Entertainment
 - b) Knowledge creation
 - c) Story writing
 - d) Advertising
- (iii) Which of the following best explains the importance of a good research design?
 - a) It reduces the sample size
 - b) It ensures systematic and efficient collection of data
 - c) It eliminates the need for analysis
 - d) It guarantees positive results
- (iv) In an experimental research design, which variable is manipulated by the researcher to observe its effect?
 - a) Dependent variable
 - b) Extraneous variable
 - c) Independent variable
 - d) Control variable
- (v) A researcher uses interviews to identify variables and later conducts a survey to measure them. Which combination of research designs is being applied?
 - a) Descriptive followed by Experimental
 - b) Experimental followed by Exploratory
 - c) Exploratory followed by Descriptive
 - d) Descriptive followed by Exploratory
- (vi) Which situation best distinguishes descriptive research from exploratory research?
 - a) Descriptive research tests hypotheses
 - b) Exploratory research uses large samples
 - c) Descriptive research measures characteristics precisely
 - d) Exploratory research focuses on cause-and-effect
- (vii) What is the main function of reference management software?
 - a) Writing code
 - b) Managing citations and references
 - c) Checking grammar
 - d) Detecting viruses
- (viii) Zotero is mainly used for

- a) Data analysis
- b) Reference management
- c) Paper submission
- d) Journal indexing
- (ix) Which practice best avoids self-plagiarism?
 - a) Copy-paste
 - b) Citing previous work
 - c) Removing references
 - d) Changing title
- (x) Why should plagiarism tools be used before submission?
 - a) To increase similarity
 - b) To ensure originality
 - c) To add references
 - d) To format text
- (xi) To reduce sampling error, researcher should:
 - a) Reduce sample size
 - b) Increase sample size
 - c) Ignore sampling frame
 - d) Avoid probability sampling
- (xii) A researcher takes sample from every department (CSE, IT, MCA) separately. This is:
 - a) Stratified sampling
 - b) Systematic sampling
 - c) Multistage sampling
 - d) Random digit sampling
- (xiii) Self-plagiarism refers to:
 - a) Copying from others
 - b) Reusing own published work without proper citation
 - c) Writing original paper
 - d) Using citations correctly
- (xiv) Predatory journals are:
 - a) High impact journals
 - b) Journals with unethical publishing practices
 - c) Government journals
 - d) Peer-reviewed top journals
- (xv) Complaint handling in publication should ensure:
 - a) Fairness and transparency
 - b) Ignoring allegations
 - c) Fast acceptance
 - d) No documentation

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Why is quantitative research suitable for hypothesis testing? (3)
3. How does exploratory research differ from descriptive research in terms of purpose? (3)
4. You want to select every 10th student from a list of 500 students. Which sampling method will you use? Explain the procedure. (3)
5. Analyze how conflicts of interest can influence research outcomes and credibility. (3)
6. Design a suitable research approach to study user satisfaction with a newly launched mobile application. (3)

OR

Construct an experimental research design to test the effect of online teaching methods on student performance. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain the meaning, objectives, and utility of research, and distinguish between qualitative and quantitative research. (5)
8. Explain and apply sampling techniques for conducting a survey in a university. Design a suitable sampling method for collecting student feedback. (5)
9. A researcher wants to estimate the proportion of students satisfied with online learning. Given: Confidence Level = 95% Estimated Proportion (p) = 0.5 (maximum variability) Margin of Error (e) = 5% Calculate the required sample size. (5)
10. Differentiate between plagiarism, self-plagiarism, and copyright violation with examples. (5)
11. Differentiate between descriptive and experimental research designs by analyzing their objectives, methods, and use of variables. (5)

12. Develop a sampling plan using multi-stage sampling for selecting colleges across West Bengal for a study. (5)

OR

- Create a complete research sampling strategy for studying internet usage habits among MCA students. (5)

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