MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL
Paper Code : CS601/CSD 601/DS601 Research Methodology
UPID : 006880

Time Allotted : 3 Hours   *Full Marks :70*

The Figures in the margin indicate full marks.
Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer *any ten* of the following :   [1 x 10 = 10]
   - (I)   What does SPSS stand for?
   - (II)   What is the purpose of a t-test?
   - (III) Expand IMRAD.
   - (IV)   What is meant by an oral presentation?
   - (V)   What is a working hypothesis?
   - (VI)   Name any one non-probability sampling technique.
   - (VII) What does TRIPS stand for?
   - (VIII) What is interpretation in research?
   - (IX)   What is meant by a conceptual research approach?
   - (X)   What is the full form of SigmaStat?
   - (XI)   Give one example of scholarly misconduct.
   - (XII) What is the main purpose of a conclusion in a report?

Group-B (Short Answer Type Question)
Answer *any three* of the following :   [5 x 3 = 15]

2. Describe the structure (layout) of a standard research report.   [5]
3. Write a short note on using the web and research databases for literature review.   [5]
4. Differentiate between probability and non-probability sampling methods.   [5]
5. Differentiate between copyright and patent with examples.   [5]
6. Illustrate the difference between t-test and ANOVA with examples.   [5]

Group-C (Long Answer Type Question)
Answer *any three* of the following :   [15 x 3 = 45]

7. (a) Describe the complete process of selecting a research topic, reviewing literature, identifying gaps, and formulating objectives.   [5]

   (b) Discuss how the internet and research databases can be effectively used to conduct a literature review and track recent developments.   [5]

   (c) What are the essential characteristics of good research? Explain with examples how these can be incorporated in research design.   https://www.makaut.com   [5]

8. (a) Describe the complete process of hypothesis testing with suitable examples and interpretations.   [10]

   (b) Discuss the importance of data processing and analysis strategies in research studies.   [5]

9. (a) What is plagiarism? Discuss its consequences and strategies to avoid it in academic writing.   [8]

   (b) Evaluate the role of reproducibility and accountability in maintaining the integrity of research.   [7]

10. (a) Explain how an effective oral presentation of a research report should be prepared and delivered.   [3]

    (b) Discuss the common errors made during interpretation and report writing and how they can be avoided.   [5]

    (c) Describe the complete process of writing and presenting a research project from data interpretation to final conclusion.   [7]

11. (a) Evaluate the importance of clarity, objectivity, and structure in research reporting.   [8]

    (b) How do the techniques of interpretation and writing affect the credibility and usability of research findings?   [7]