



**The Chartered
Institute of Logistics
and Transport**

INTERNATIONAL ADVANCED DIPLOMA IN LOGISTICS AND TRANSPORT

RESEARCH METHODS AND DATA ANALYSIS

ADIP06

NOVEMBER 2022

Note to Candidates

The aim of this paper is to establish your in depth understanding of the principles and applications involved in Research Methods and Data Analysis. Candidates are encouraged to make use of relevant examples where applicable.

Instructions to Candidates

- Duration of examination: **3** hours
- **Answer Question 1: Multiple Choice Questions (Compulsory) in Section A and 3 Questions in Section B**
- Questions may be answered in any order
- Allocation of marks is indicated alongside each question
- Credit will be given for citing relevant examples
- Write legibly

SECTION A: Multiple Choice Questions (Compulsory)

(40 marks)

Chose the most appropriate answer and write the symbol against each question, e.g. 'A' or 'B'

1. Business research means the discovery of new knowledge in the field of
 - A. Management
 - B. Administration
 - C. Business
 - D. None of these
2. The application of the scientific method to the study of business problems is called
 - A. Inductive reasoning
 - B. Deductive reasoning
 - C. Business research
 - D. Grounded Theory

3. Which of the following is the first step in starting the research process?
 - A. Searching sources of information to locate problem.
 - B. Survey of related literature
 - C. Identification of problem
 - D. Searching for solutions to the problem
4. According to Polonsky and Waller (2010) how many stages are there to the research process?
 - A. 5
 - B. 6
 - C. 7
 - D. 8
5. Research questions in qualitative studies typically begin with which of the following words?
 - A. Why
 - B. How
 - C. What
 - D. All of the above
6. Good business research generates dependable data that are used reliably for
 - A. Business decision making
 - B. National policy making
 - C. International policy making
 - D. Profit making
7. Original source from which researcher directly collects the data that has not been previously collected
 - A. Primary data
 - B. Secondary Data
 - C. Tertiary Data
 - D. None of these
8. The two main styles of research are
 - A. Data collection and data coding
 - B. Surveys and questionnaires
 - C. Sampling and recording
 - D. Qualitative and quantitative
9. All research process starts with
 - A. Hypothesis
 - B. Experiments to test hypothesis
 - C. Observation
 - D. All of these

10. The most common scales used in research are
 - A. Nominal
 - B. Ratio
 - C. Ordinal
 - D. All of the above

11. If a group of N observations is arranged in ascending or descending order of magnitude, then the middle value is called
 - A. Mean
 - B. Median
 - C. Mode
 - D. None of these

12. A variable that changes due to the action of another variable is known as the
 - A. Independent variable
 - B. Extraneous variable
 - C. Complex variable
 - D. Dependent Variable

13. Conducting surveys is the most common method of generating
 - A. Primary data
 - B. Secondary data
 - C. Qualitative data
 - D. None of the above

14. What is abbreviation of ANOVA?
 - A. Analysis of variance
 - B. Analysis of variation
 - C. Analysis of variant
 - D. None of these

15. What are the two types of sampling methods?
 - A. Random or probability sampling and non-probability sampling
 - B. Probability sampling and random sampling
 - C. Probability sampling and non-random sampling
 - D. All of the above

16. A literature review assumes that
 - A. Copy from the work of others
 - B. Knowledge accumulates and learns from the work of others
 - C. Knowledge disaccumulates
 - D. None of the above option

17. Ethical behaviour pervades each step of the
 - A. Report writing
 - B. Data collection
 - C. Research process
 - D. Data analysis

18. The outcome of what is being measured is termed:
- A. Independent Variable
 - B. Dependent Variable
 - C. Predictor variable
 - D. Hypothetical Variable
19. A literature review requires
- A. Planning
 - B. Clear writing
 - C. Good writing
 - D. All of the above
20. Which of the following is most beneficial to read in an article?
- A. Methods
 - B. Introduction
 - C. Figures
 - D. References

SECTION B

Answer any THREE questions

(60 marks)

Question 1

Is research of any significance to a business of today? Discuss.

(20 marks)

Question 2

Distinguish between the following concepts.

- a) Dependent variable and independent variable **(4 marks)**
- b) Sample Mean and Population Mean **(4 marks)**
- c) Reliability and validity **(4 marks)**
- d) Proposition and hypothesis **(4 marks)**
- e) Implications and recommendations **(4 marks)**

Question 3

Writing a research proposal is a crucial part of a research process. Describe the key components that make up a research proposal. **(20 marks)**

Question 4

Examine the points that should be considered in each of the following sections of the research report.

- a) Literature Review **(5 marks)**
- b) Research Methodology **(5 marks)**
- c) Conclusion **(5 marks)**
- d) Suggestions for Further Studies **(5 marks)**

Total 20 marks