INTERNATIONAL ADVANCED DIPLOMA IN LOGISTICS AND TRANSPORT

RESEARCH METHODS AND DATA ANALYSIS

ADIP06

JUNE 2025 EXAMINATION

Note to Candidates:

This paper aims 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 any **FOUR** questions.
- Start answering each main question on a fresh page.
- Mark allocation is indicated alongside each question.
- Write legibly.

QUESTION 1

With the aid of clear examples, distinguish between.

a) Population and sample **(5 marks)**

b) Research Methodology and Research Methods **(5 marks)**

c) Hypothesis and research question **(5 marks)**

d) Nominal variables and Ratio variables **(5 marks)**

e) Exploratory research and Causal research **(5 marks)**

QUESTION 2

a) A class of 19 CILT students did an Advanced Diploma module in Research Methods and scored the following marks.

25	35	45	60	35	60	95	85	70	80
35	45	70	60	75	60	40	90	75	

From the data given above, calculate the following.

i. Arithmetic mean **(3 marks)**

ii. Median **(3 marks)**

iii. Use the Pie chart to show the failure rate. **(4 marks)**

b) Artificial intelligence (AI) has revolutionised the landscape of business research and analysis. Briefly discuss the statement with examples. **(15 marks)**

QUESTION 3

There are three major Research Methods approaches which are quantitative, qualitative and the mix methods. Describe each by outlining their differences and their unique aspects.

(25 marks)

QUESTION 4

Discuss the managerial value of business research. **(25 marks)**

QUESTION 5

Give practical examples and discuss any five ethical considerations to be observed when conducting business research and data analysis. **(25 marks)**

QUESTION 6

a) Discuss the main goals of reviewing literature in research. **(15 marks)**

b) Why is a research proposal important in business research. **(10 marks)**