



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management
Graduate Diploma in Materials Management
PAPER No. 13 (New)
Research Methodology

Dec 2015

Date : 20.12.2015

Time : 10.00 a.m to 1.00 pm

Max. Marks :100

Duration : 3 Hrs.

Instructions :

1. Part A: Four Questions (Q 1 to Q 4). All questions are compulsory. Each Question carries 1 mark. **(Total marks 32).**
2. Part B: From Part B answer any three out of 5 questions. Each question carries 16 marks. **(Total marks 48).**
3. Part C: (Compulsory). Case study. **(Total marks 20)**

PART- A

32 marks

Attempt all questions. Each Question carries 1 mark.

Q : 1 Select Correct Answers From the Following: 8 marks (Write the Full answer of Your Choice and not only – a, b, or c)

- A. Application of Z Test is possible if :
- a) Sample size is less than 30.
 - b) Equal to or more than 30.
 - c) Must be more than 30.
- B. Non Probability Sampling is
- a) Snow Ball Sampling.
 - b) Random Sampling.
 - c) Cluster Sampling.
- C. ANOVA stands for
- a) Analysis of variation.
 - b) Analysis of variability.
 - c) Analysis of Variance.
- D. If coefficient of correlation is -1 the two variables
- a) may be correlated
 - b) are not correlated
 - c) perfectly negatively correlated
- E. A measure is reliable if repeated measurements :
- a) maintain the same distance between them
 - b) are consistent
 - c) are almost similar

- F. Validity of sample depends on
- a) accuracy
 - b) population characteristics
 - c) wide variation between the elements

- G. Halo effect is
- a) known error
 - b) unidentified error
 - c) a pervasive error

- H. Standard deviation is commonly denoted by:
- a) Alpha
 - b) Beta
 - c) sigma

Q.2. Match the following in the correct order

8 marks

A	B
1. Median	a. Maximum Frequency
2. Cumulative Frequency Curve	b. Pictures
3. Hypothesis testing	c. Z curve
4. Thematic Apperception Test	d. Statistics that already exist
5. Secondary Data	e. Cause and effect study
6. Mode	f. Mid-point of the data distribution
7. Causal Research	g. lies in the concept of null
8. Normal Distribution	h. Ogives

Q.3. Write " true" or false"- before the following statements:

8 marks

- I. A research design is just a gamut of techniques.
- II. Applied research develops academic concepts.
- III. A Type – I error is the failure to reject a false null hypothesis
- IV. Extraneous variables affect the causality between variables
- V. In cluster analysis, the individual clusters are similar to each other
- VI. A lottery method can be used in probabilistic sampling
- VII. Reliability is not a sufficient condition for validity
- VIII. In open end questions, respondents are not free to answer in their own wards

Q4. State the full form of the abbreviation

8 marks

- a) LCL
- b) H_0
- c) CATI
- d) SD
- e) EDA
- f) OLAP
- g) SPSS
- h) MANOVA

PART - B
(Answer Any Three Questions)

3 x16 = 48 marks

Q. 5 : Explain In Short :

- | | |
|---|-------------------------------------|
| (a) Forms of Scientific Research Methods. | (b) Cross-Tabulation |
| (c) Errors in Hypothesis Testing. | (d) Probabilistic Sampling Methods. |

Q.6. Distinguish between (any two)

- a) Factor analysis and conjoint analysis
- b) Parametric tests and Non-Parametric tests
- c) Open ended and closed ended questions

Q. 7. What are the various Types of Research Reports? Explain with suitable examples.

Q. 8. Discuss the various comparative and non comparative scaling techniques.

Q. 9. Define and Explain the Terms :

- a) Research Design
- b) Focused Group Technique

PART- C (Compulsory)
CASE STUDY

20 marks

Q10. Bajaj Auto is planning to launch R-60 Quadricycle in the Indian market. R-60 is a commercial passenger vehicle for local transportation. The target market is the current buyers of auto rikshaws. In order to conduct a research regarding the design specifications, price and other expectations of the target market, develop the following.

- a) Research design, also suggest sampling technique
- b) Questionnaire for primary data collection
