



INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Materials Management

June 2015

Graduate Diploma in Materials Management

PAPER No. 13(OLD)

Research Methodology

Date : 21.06.2015

Max. Marks :100

Time : 10.00 a.m to 1.00 pm

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. Validity of samples depends on
- a) Accuracy
 - b) Wide variations between the elements
 - c) Population characteristics
- B. Temperature scale is
- a) Ratio scale
 - b) Ordinal scale
 - c) Interval scale
- C. t-test is used when
- a) Sample size $n > 30$
 - b) Sample size $n < 30$
 - c) $n < 30$ and population standard deviation is not given
- D. A measure of dispersion is
- a) Median
 - b) Range
 - c) Mode

- E. SPSS stands for
- a) Software package for social sciences
 - b) Special package for social sciences
 - c) Statistical package for social sciences
- F. Standard deviation is commonly denoted by
- a) Sigma
 - b) Beta
 - c) Alpha
- G. Halo effect is
- a) A pervasive error
 - b) Known error
 - c) Unknown error
- H. Normal distribution curve is:
- a) Skewed
 - b) Symmetric
 - c) Asymmetric

Q : 2 : Fill in the Blanks . (Selecting from the given choices)

8 Marks .

- a) Reliability of data depends on _____
- b) _____ is a summated rating scale.
- c) Type II error is the risk of _____
- d) Binomial distribution is applicable to trials which have two mutually _____ outcomes.
- e) In _____ sampling each and every element of the population has an equal chance of being selected in the sample.
- f) OLAP stands for _____ .
- g) Chi-square test is a _____ test.
- h) _____ helps to break complex problems into manageable parts.

Q : 3 Match the Pairs . (Write full correct pairs)

8 marks

- | | |
|--|-------------------------------|
| A Testing of hypothesis | Measure of attitude |
| B Thematic apperception test consist of set of | Ogive |
| C Factor analysis | Review of literature |
| D Likert scale | Z-Curve |
| E Source of research problem | Lies in the concept of 'null' |
| F Cumulative frequency curve | Average of reciprocals |
| G Normal distribution | Pictures |
| H Harmonic mean | Reduction of variables |

Q : 4 State True or False :

8 marks

- a) Scalogram is multi-dimensional
- b) Mean is measure of dispersion
- c) Chi-square test is a non-parametric test
- d) Validity has to do with precision of a measured produce.
- e) Binomial distribution is applicable to trials which have to mutually inclusive outcomes.
- f) If coefficient of correlation is zero, the two variables are not related.
- g) Editing of questionnaire is done with the objective of modifying the responses.
- h) In linear discriminate analysis, dependent variable is product of two variables.

PART - B

(Answer Any Three Questions)

3x16 = 48 marks

Que : 5 : Explain In Short (Attempt Any Two) :

- (a) Testing of hypothesis
- (b) Research proposal
- (c) Cross tabulation
- (d) Systematic random sampling

Que. 6 : Distinguish between (Attempt Any Two)

- (a) z-test and t-test
- (b) Cluster sampling and stratified sampling
- (c) Parametric test and Non-parametric test
- (d) Type I error and Type II error

Que. 7 :

- (a) Explain what are the various types of variables.
- (b) Discuss the characteristics of a good research proposal.

Que. 8 : Write short note on (Attempt Any Two)

- (a) Technical report writing
- (b) Poisson and normal distribution
- (c) ANOVA and MANOVA
- (d) Co-efficient of skewness

Que. 9 : (A) Explain with examples the various types of scales

8 marks

(B) Discuss the precautions to be taken while designing a questionnaire.

8 marks

CASE STUDY

Q. 10 A multi-national fast food chain is planning to open chain of restaurants in metro cities in India. Before its launch, the company is planning to conduct a consumer survey to determine the following

- (a) Preferred location
- (b) Consumer buying behavior
- (c) Price
- (d) Test and preferences
- (e) Target market

As a researcher you are required to do the following

- (a) Prepare an elaborate research design
- (b) Design a questionnaire for data collection
- (c) Suggest suitable method for data collection
- (d) Recommend statistical tools for generating meaningful information based on the collected data
