INDIAN INSTITUTE OF MATERIALS MANAGEMENT

DEC-2010 **Post Graduate Diploma in Materials Management**

Graduate Diploma in Materials Management

PAPAR – 13

Research Methodology

Date : 14.12.2010 **Max Marks: 100**

Time: 10.00 am to 1.00 pm **Duration: 3 hours**

Instructions:

1. PART A : Contains 4 main questions (8 sub questions) . Total 32 marks
2. PART B: Answer any three questions out of 5. Each carries 16 marks. Total 48 marks
3. PART C is Case Study (Compulsory) Total 20 Marks

PART A

1. Select Correct Answer :-

a) Sample size depends upon
   I) Only Accuracy
   II) Only Time
   III) Accuracy, Time & Cost

b) Geometric Mean of 2,4,6 is
   I) 3 II) 4 III) 5

c) Equal Probability is also called as
   I) Varying Probability
   II) Random Sampling with replacement
   III) Random Sampling without replacement

d) Snowball Sampling is a kind of
   I) Non - probability sampling
   II) Probability Sampling
   III) None of above

e) Standard deviation is denoted by
   I) σ II) Δ III) Π

f) Coefficient of Variation (C.V) can not be used when
   I) X = 0
   II) X= 1
   III) X is between 0 and 1

g) Z Test is used when sample size (n) is
   I) Greater than 30
   II) Less than 30
   III) Equal to 30

h) Standard Deviation (σ) is positive square root of

I) Mean
II) Variance
III) Mode

2. Fill up the blanks :-

a) A measure of dispersion is ----------.
b) Extraneous Variables are also known as ---------- variables.
c) Case Study is one of the methods of ---------- research.
d) One dimensional diagram is also known as ----------diagram.
e) Total Frequency for Chi-Square Test should be greater than ---------.
f) Index number is expressed in terms of ----------.
g) Example of Parametric test are Z-Test, T-Test & ----------.
h) T –test is used when sample size (n) is less than----------.

3. Match the following :-

	Column A		**Column B**
A	One dimensional diagram	a	Map diagram
B	Cumulative Frequency Curve	b	Bar diagram
C	Random sampling	c	Measure of central tendency
D	Zee Chart	d	Lottery method
E	Binomial distribution	e	ANOVA
F	Cartogram	f	Z-Curve
G	Analysis of Variance	g	Ogive
H	Mode	h	Pascal’s Triangle

4. Find True or False of the following :-

a) Research is also known as ‘Search of Knowledge’.
b) Analysis of data involves Editing, Tabulating &Codifying.
c) Degree Of Freedom is the number of values that we can choose freely.
d) Primary Data are statistics that already exist.
e) Unstructured and undisguised questionnaire is suitable for conducting depth interview.
f) Two dimensional diagrams are different from Surface or Area diagrams
g) Mode is that value of the random variable for which probability is minimum.
h) The main purpose of Factor Analysis is to group large set of variable factors into fewer factors.

PART B

(Answer any three questions)

5 a) What are the characteristics features of good research?

b) Discuss the methods for secondary data collection

6. Write short note on (Any Two)

a) Mean, Median & Mode
b) Index Number
c) ANOVA
d) Chi-Square Test

7. a) What are different types of research report?

b) What is SPSS software?

8. a) The mean of a distribution is 14 and the standard deviation is 5. What is the value of the coefficient of variation?

I) 50.5% II) 40.1% III) 35.7 % IV) 80.1%

b) The marks of nine students in a mathematics test that had a maximum possible mark of 50 are given below:

47 35 37 32 38 39 36 34 35

Find the Median of this set of data values.

9. Distinguish between any two (8 + 8)

a) Diagram & Graph
b) Probability Sampling & Non-probability Sampling
c) Parametric & Non-Parametric test (P-216)
d) Oral & Written reports (P-263)

PART C

10. (Case Study)

An insurance company is reviewing its current policy rates. When originally setting the rates they believed that the average claim amount was $1,800. They are concerned that the true mean is actually higher than this, because they could potentially lose a lot of money. They randomly select 40 claims, and calculate a sample mean of $1,950. Assuming that the standard deviation of claims is $500, and set $\sigma = 0.05$ test to see if the insurance company should be concerned.