

INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management
Graduate Diploma in Materials Management

Paper No. – 13
Research Methodology

Date -11-6-2009
Time – 10 AM

Max. Marks-100
Duration : 3 Hrs.

Instructions :

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| 01. | Part – A : Contain 4 main questions (8 sub questions) – | Total 32 marks |
| 02. | Part – B : Answer any 3 questions out of 5. Each question carry 16 marks – | Total 48 marks |
| 03. | Part – C is compulsory (Case Study) – | Total 20 marks |

Part – A

01. Select appropriate answer for the following :

- a) Quantitative Research Approach classified as :
- i) Experimental and simulation approach
 - ii) Insights and impression approach
 - iii) Subjective approach
- b) Stratified sampling means
- i) Sample does constitute from homogenous group
 - ii) Sample does not constitute from homogenous group
 - iii) Randomness is introduced
- c) Hypothesis testing is generally made by :
- i) Chi-square test
 - ii) Simulation test
 - iii) Sensitivity test
- d) Professor Fisher has enumerated three principles of experimental designs :
- i) Principle of periphery control
 - ii) Principle of local control
 - iii) Principle of randomization
- e) Most widely used classification of measurement scales are :
- i) Ordinal scale
 - ii) Ratio scale
 - iii) Ranking scale
- f) Harmonic mean is applicable :
- i) To prepare index no.
 - ii) To measure dispersion
 - iii) To conduct time and motion study

- g) Range is a measure of :
- i) Mean value
 - ii) Dispersion
 - iii) Co-relation
- h) Standard deviation is commonly denoted by :
- i) Alpha
 - ii) Beta
 - iii) Sigma

02. Fill up the blanks.

- a) _____ is the value of the middle item of series arranged in ascending or descending order.
- b) The study of social attitudes follows the pattern devised by a scale, known as _____
- c) The first step in developing any sample design is to clearly define the set of objectives, technically called _____
- d) Sample designs are basically of two types one is non probability sampling which is also known as _____
- e) Weight, height, income are all examples of _____
- f) Thematic apperception test (TAT) consists of a series of _____
- g) Z-test is based on the _____ Probability Distribution.
- h) F-test is based on _____ Distribution.

03. Match the following:

Column A		Column B	
a)	Multi Dimensional Scaling (MDS) is used when	a)	Ratio scale
b)	Standard deviation is used to measure	b)	Co-efficient of variation
c)	Harmonic mean	c)	Difference between extreme values of a series
d)	Co-relation analysis	d)	Average of reciprocals
e)	Median	e)	Joint variation of two or more variables
f)	Range	f)	Dispersion of a series
g)	Standard deviation divided by arithmetic average multiplied by 100	g)	Value of middle item of series all the variables
h)	A person's typing performance can be expressed by	h)	All the variable (independent) in a study are to be analysed

04. Find True or False of the following statements :

- a) Conceptual research is related to abstract idea / theory
 - b) Quantitative research is based on measurement of amount.
 - c) Research hypothesis cannot be found out from discussion with the expert about the problem
 - d) Deliberate sampling is known as probability sampling
 - e) Cluster sampling involves grouping population
 - f) Preparation of thesis-report contains summary of findings.
 - g) Good research is not replicable
 - h) Stratified sampling is applicable when samples are not from homogenous
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Part – B

05. a) What do you mean by Dependent and independent variables ? 8

b) What is principle of Randomization and principle of local control ? 8

06. A market research survey in which 64 consumers were contacted states that 64% of all consumer of a certain product were motivated by the product's advertising. Find the confidence limits for the proportion of consumers motivated by advertising in the population ; given a confidence level equal to 0,95. (Z for confidence level 95% is 1.96) 16

07. Write short notes (any four) 4 x 4 = 16

- a) Likert scale
- b) Median & mode
- c) Chi Square test
- d) Measures of Asymmetry (Skew ness)
- e) Hypothesis & null hypothesis
- f) Anova

08. Distinguish between any two :

- a) Ordinal Scale and Nominal Scale
- b) Quota Sampling and Probability Sampling
- c) Rosenzweig test and Rorschach test
- d) Questionnaires and Schedules

09. a) What is Hypothesis ? 2 + 6 + 8

b) What are the characteristics of hypothesis ?

c) Draw a flow diagram for hypothesis testing.

Part – C

Shirley and Abdul both work for a software development company. The manager of the new product division was originally the leader of a project team for which she interviewed and hired Abdul. Shirley, another project team member, also interviewed Abdul but strongly opposed hiring him for the project because she thought he was not competent to do the job.

Seven months after Abdul was hired, the manager left the project to start her own company and recommended that Abdul and Shirley serve as joint project leaders. Shirley agreed reluctantly- with the stipulation that it be made clear she was not working for Abdul. The general manager consented. Shirley and Abdul were to share the project leadership.

Within a month Shirley was angry because Abdul was representing himself to others as the leader of the entire project and giving the impression that Shirley was working for him. Now Shirley and Abdul are meeting with you to see if you can help them resolve the conflict between them.

Shirley says. "Right after the joint leadership arrangement was reached with the general manager, Abdul called a meeting of the project team without even consulting me about the time or content. He just told me when it was being held and said I should be there. At the meeting, Abdul reviewed everyone's duties, line by line, including mine, treating me as just another team member working for him. He sends out letters and signs himself as project director, which obviously implies to others that I am working for him."

Abdul says : "Shirley is all hung up with feelings of power and titles. Just because I sign myself, as project director doesn't mean that she is working for me. I don't see anything to get excited about. What differences does it make? She is too sensitive about everything. I call a meeting and right away she thinks I'm, trying to run everything. Shirley has other things to do other project to run – so she doesn't pay too much attention to this one. She mostly lets things slide. But when I take the initiative to set up a meeting, she starts jumping up and down about how I am trying to make her work for me."

Question :

What are the possible ways to deal with the conflict between Abdul and Shirley?
