INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics &SCM
Post Graduate Diploma in Materials Management - 2 years

Dec 2023

PAPER No.20 (enrolment code –CPM, CPS)
PAPER No. 17(enrolment code- PMM,PSM,)[OFFLINE EXAM]

Research Methodology

Date : 16.12.2023 **Max. Marks: 70**
Time : 2.00 pm to 5.00 pm **Duration : 3 Hrs.**
Instructions:

1. From Part A, contains 4 main questions (with 5 sub-questions) each question carries 1 mark Total of 20 marks
2. From part B answer any5 questions out of 5 questions. Each question carries 10 marks – A total of 50 marks
4. Graph Sheet will be provided if required.
5. Use of standard calculator is permitted.

PART – A (compulsory) (20 marks)

Attempt all questions. Each sub-question carries 1 mark.)

Q. 1) Expand the following terms: **[5 marks]**

a)EG b)BMDP c)SAS d) CSO e)C-R Design

Q. 2) Fill in the blanks: Select appropriate option **[5 marks]**

a) ____ frequency is the exact frequency given by the respondents.
(i) Absolute (ii) Relative (iii) Cumulative (iv) Converted

b) ____ research approach is known as mixed research approach.
(i) Empirical (ii) Pragmatic (iii) Qualitative (iv) Quantitative

c) -------- ---------- is the conceptual framework in which research is carried out
(i) Research hypothesis (ii) Synopsis of research (iii) Research paradigm (iv) Research design

d) A survey questionnaire has ----------.
(i) Wide coverage (ii) Lack of personal contact (iii) Limited response (iv) Lack of uniformity

e) The ---------- test is used for comparing mean of samples when the sample size is greater than 30 and the population variance is not known
(i) Z-test (ii) t-test (iii) F-test (iv) Chi-square test

Q. 3) State 'True' or 'False' **[5 marks]**

a) Sample is a representative population.
b) Empirical approach deals with subjective evaluation of attitudes.
c) A hypothesis that is accepted at 1% level of significance will always be accepted at 1% level of significance also.
d) Beneficence is one principle of research ethics.
e) Managers of the organization conduct research to address problems.

Q. 4) Match the following **[5 marks]**

	Column A		**Column B**
1	Hypothesis	A	Truthfulness
2	Simulation	B	Exploration
3	Honesty	C	Proposition
4	Research	D	Non-malfeasance
5	Do not harm	E	Scientific Modeling

PART B [50 marks]

(Attempt any 5. Each question carries 10 marks)

Q. 5) **(2 x 5 = 10 marks)**

a) Explain the characteristics and objectives of good research.

b) What are the applications of research in different fields of business management?

Q. 6) **(2 x 5 = 10 marks)**

a) Define the research problem and explain the concept of management dilemma with one example each.

b) Discuss various components of research deign.

Q. 7) **(2 x 5 = 10 marks)**

a) Explain the concept of sampling and highlight the differences between census and sample survey.

b) What do you understand by the term “Sampling Errors” What are the reasons for occurrence of these errors?

Q. 8) **(2 x 5 = 10 marks)**

a) Explain the various stages of developing measurement tools and the fundamental criteria of good measurement.

b) A group of 17 people gave the following ratings to a book on a 5-pointer scale (where 1 is the lowest rating and 5 is the highest rating):
2, 5, 3, 4, 1, 5, 4, 3, 1, 2, 5, 4, 3, 2, 1, 5, 4
Calculate the average rating by using median.

Q. 9) **(2 x 5 = 10 marks)**

a) Explain different method of primary and secondary data collection.
.

b) What are the attributes of a well-designed questionnaire? Explain.

Q. 10) **(2 x 5 = 10 marks)**

a) Briefly explain the assumptions of Parametric and Non-Parametric Tests highlight different types of parametric tests used for hypothesis testing.

b) Explain the research proposal. What is the chi-square test?

Q. 11) **(2 x 5 = 10 marks)**

a) What do you understand by “Rank Correlation?” Where is it used? Explain the steps involved in calculation of Rank Correlation.

Q. 11)

b) Calculate the Correlation between Customer Satisfaction and Sales of the Company.

Number ofObservations	CustomerSatisfaction	Sales ofCompany)
1	4	5
2	6	6
3	7	6
4	8	4
5	9	6
6	10	9
7	8	10
8	7	2
9	1	3
10	2	4
11	9	9
12	8	8
13	7	9
14	10	11
15	6	5
16	9	12
17	8	15
18	10	12
19	9	16
20	8	20
21	10	20
22	4	6
23	5	8
24	10	14
25	10	19

Q. 12) Write Short Notes on **(Any Two)** **(2 x 5 = 10 marks)**

a) Telescopic error
b) Face validity
c) Precision
d) Double-barreled question