INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Logistics &SCM
Post Graduate Diploma in Materials Management - 2 years
PAPER No.20 (enrolment code –CPM, CPS)
PAPER No. 17 (enrolment code- PMM, PSM,)
Research Methodology

Dec 2022

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.

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PART – A (compulsory)   (20 marks)
Attempt all questions. Each sub-question carries 1 mark.)

Q.1:   Expand the following: **[5 Marks]**

a. CRD   b. SAS   c. SWOT   d. H_0 e. H_1

Q.2:   Match the following: **[5 Marks]**

Column A	Column B
A. Literature Review	1. Absolute Zero Measurement
B. Research Design	2. True or False
C. Ratio Scale	3. Formulating a Research Hypothesis
D. Dichotomous question	4. Rank Correlation
E. Qualitative Data	5. Attain Reliable Results

Q.3:   State True or False: **[5 Marks]**

a. Bibliography contains sources of primary data.
b. Rank Sum Test is a Parametric Test.
c. The bars in a bar chart are connected as they represent different categorical entities.
d. Forward telescopic error occurs where people remember distant event as being more recent than they are.
e. The summated scale is most frequently used in studying social attitudes.

Q. 4:   Fill in the blanks: **[5 Marks]**

a. Research is a careful and systematised effort to gain new ……….. .
b. Primary data is collected by testing or …………………...
c. A research design should be consistent throughout a series of measurements to provide ……. or ……...
d. Census is also called……..
e. The classification of qualitative questions is called statistics of ……...

PART B   **[50 marks]**
(Attempt any 5. Each question carries 10 marks)

Q. 5: Write short notes on any two.   **(2 X 5=10 marks)**
a. Quantitative research approach
b. Sample design process
c. Types of hypothesis
d. Research report

Q. 6: Explain in details the process to be followed in writing a literature review?   **[10 marks]**

Q. 7: What is research design? Explain the research design for descriptive study?   [**10 marks**]

Q. 8: What are the different types of errors in measurement? What are its causes and how it can be reduced?   **[10 marks]**

Q. 9:a) What is a measurement tool? Discuss the procedure for development of a measurement tool?   **[5 marks]**

b) What are the basic criteria of a good measurement tool?   **[5 marks]**

Q 10: From the following data calculate the skewness and coefficient of skewness?   **[10 marks]**

Person	Amal	Kamal	Jyoti	Suraj	Tarun
Age in years	18	17	18	17	19

Q 11: From the following data find the regression equation between number of consumers and monthly sales. Also using the regression equation compute the value of monthly sales for each value of the number of consumers.   **[10 marks]**

Sl No.	1	2	3	4	5	6	7	8	9	10
No. of Consumers (in '00)	2.0	3.4	6.2	7.6	6.5	8.2	7.6	9.3	3.1	8.1
Monthly Sales (in '000)	12	6	7	11	13	33	31	22	36	24

Q 12: A company produces tennis balls and it has laid down that the ball should weigh 55 grams in order to get good ratings. The samples are drawn on hourly basis and checked for ideal weight. In a given hour, 11 balls are checked randomly and their mean is calculated as 55.006 grams and standard deviation of 0.029 grams. If the production line get out of sync with more than 1% level of significance, the production line is shut down. Using two – tailed test examine whether the production line should be shut down in this case?
[Given the table value of' t' for degrees of freedom 10 is 3.169].   **[10 marks]**

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