21COM3C11L

M.Com. III Semester Degree Examination, April/May - 2023
COMMERCE
Business Research Methods
(CBCS)

Time : 3 Hours   Maximum Marks : 70

Note :   *Answer **any five** of the following questions with Question No. **1 (Q1) Compulsory**, each question carries **equal** marks.*

1. Define Ethics in Research. Brief out the importance of ethics in Business Research.   **14**

2. What is Research Design ? Briefly explain the essentials characteristics and components of Research Design.   **14**

3. What is primary data ? Briefly explain the methods of collecting primary data with their respective advantages and application.   **14**

4. Answer the following sub-questions   **14**

    (a) What is F-test ? State the applications of F-Test.

    (b) A Tea Company appoints four salesmen A, B, C and D and observes their sales in three seasons - Summer, Winter and Monsoon. The figures in lakhs are given in the following table :

Seasons	Salesmen				Total
	A	**B**	**C**	**D**	
Summer	36	36	21	36	129
Winter	28	29	31	31	119
Monsoon	26	28	29	29	112
Total	90	93	81	96	360

    (i) Do the salesmen significantly differ in performance ?

    (ii) Is there significant difference between summers ?

5. What is Research Report ? State the Critical Elements of Research report and precautions to be taken by the researcher in drafting the research report.   **14**

6. Answer the following sub-questions :

    (a) What do you mean by measurement ? Differentiate Measurement and scaling. **4**

    (b) Differentiate Reliability and Validity. Briefly explain the tests of reliability. **5**

    (c) What is Hypothesis Testing ? Briefly explain the steps involved in Testing Hypothesis. **5**

7. Answer the following sub-questions :

    (a) A manufacturer claims that its rechargeable batteries are good for an average of more than 1,000 charges. A random sample of 100 batteries has a mean life of 1002 charges and a standard deviation of 14. Is there enough evidence to support this claim at $\alpha = 0.01$? **7**

    (b) A milk producers union, wishes to test whether the preference pattern of consumers for its products on income levels. A random sample of 500 individuals gives the following data : **7**

Income	Product Prefered		
	Product A	**Product B**	**Product C**
Low	170	30	80
Medium	50	25	60
High	20	10	55

        Can you conclude that the preference patterns are independent of Income Levels ?

8. Answer the following sub-questions :

    (a) A consumer research organization routinely selects several car models each year and evaluates their fuel efficiency. In the year 2022, the organization selected two similar sub-compact models from two different automakers. The average gas mileage for 12 cars of brand A was 27.2 miles per gallon and the standard deviation was 3.8 mpg. The nine brand B cars that were tested and averaged 32.4 mpg and the standard deviation was 4.3 mpg at $\alpha = 0.01$, should it conclude that Brand A cars are lower average gas mileage than do Brand B cars ? **5**

    (b) What is data processing ? Brief out the steps involved in data processing. **5**

    (c) Differentiate Sample, Sampling and Sampling design. **4**

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