# 3T-2 - Research Designing and Planning

P. Pages : 2

Time : Three Hours

*1315*

GUG/S/23/11135

Max. Marks : 80

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Notes :   1.   All questions are compulsory and carry equal marks.
          2.   Calculator and statistical tables permitted.

**1.**   a)   What is 'Research'? Discuss the methods and objectives of research.   **16**

**OR**

   b)   Explain the concept & features of research design. How do you select the research problem.   **16**

**2.**   a)   What is reliability and validity of research tool.   **8**

   b)   Discuss Qualitative & quantitative studies.   **8**

**OR**

   c)   Explain the difference between collection of data through questionnaires and schedules.   **8**

   d)   What is primary and secondary source of data?   **8**

**3.**   a)   Explain format of a research proposal. Differentiate between individual and institutional research proposal.   **16**

**OR**

   b)   Explain the format of a research report, with steps involved in planning report writing work.   **16**

**4.**   a)   Define the term of 'Hypothesis' with various definition & write down details about 'Null Hypothesis' & it's characteristics.   **16**

**OR**

   b)   Calculate the co-efficient of contingency ($x^2$) from the following data.   **16**

|   | Level of children | | |   |
| --- | --- | --- | --- | --- |
| Income group of family | Dull | Average | Brilliant | Total |
| Lower | 22 | 35 | 23 | 80 |
| Middle | 38 | 70 | 32 | 140 |
| Higher | 60 | 20 | 20 | 100 |
| Total | 120 | 125 | 75 | 320 |

Do these results suggest that the level of children is affected by the Income group of the family? (At 5% level of significance the value of $x^2$ is 9.488 for 4 degrees of freedom).

**5.**  Write short **any four.**   **4x4 =16**

a) Criteria for good research.

b) Analyzing of data.

c) References

d) Find out the mean

| X | F |
|----|----|
| 30 | 1 |
| 26 | 2 |
| 22 | 3 |
| 18 | 3 |
| 15 | 1 |
| | N = 10 |

e) Find the value of median

| Marks | Fre |
|----------|-----|
| 10 to 20 | 10 |
| 20 to 30 | 20 |
| 30 to 40 | 10 |
| 40 to 50 | 5 |
| 50 to 60 | 10 |
| 60 to 70 | 20 |
| 70 to 80 | 10 |
| | n = 85 |

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