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Total No. of Questions: 13] [Total No. of Pages: 02

## J-3313[S-1169]

# [2037]

# M.Sc.(HMCTT/HMT)(Semester - 4<sup>th</sup>)

## METHODS OF RESEARCH AND ANALYSIS (M.Sc.(HMT)-402)

Time: 03 Hours Maximum Marks: 75

#### **Instruction to Candidates:**

- 1) Section A is **compulsory**.
- 2) Attempt any Nine questions from Section B.

### **Section - A**

Q1) (15 x 2 = 30)

- a) State any 3 advantages of the multiple choice question.
- b) What is field experimentation?
- c) Write briefly on Factor analysis.
- d) Explain the need for stratification.
- e) Give mathematical expression for analysis of covariance.
- f) Define standard error.
- g) Write a short note on Types of Hypothesis.
- h) What are the applications of correlation?
- i) What is meant by Analysis of variance?
- j) What are the applications of Chi-Square test?
- k) List out the basic assumptions to apply ANOVA technique.
- 1) Write a short note on Regression analysis.
- m) Enlist the types of probability and non-probability sampling methods.
- n) Write short note on Field Study.
- o) Explain the term Level of significance.

### **Section - B**

 $(9 \times 5 = 45)$ 

- Q2) Explain the principles of experimentation with examples.
- Q3) Write short notes on each of the following
  - (a) Content Analysis
  - (b) Action Research
- **Q4**) Distinguish between ANOVA and ANCOVA. Illustrate with appropriate examples.
- **Q5**) What is meant by 'Export factor' research? How will you employ this method? Explain.
- **Q6**) Explain the process of estimation and testing a hypothesis?
- **Q7**) What is meant by 'Hypothesis'? List the characteristics of a good hypothesis. Identify its uses.
- Q8) Distinguish between Cluster Analysis and Factor Analysis. Illustrate.
- **Q9**) Define sampling. Discuss the theory and types of sampling.
- Q10) What is the meaning of regression. Explain regression lines and regression coefficients.
- *Q11*)Explain how the Before After without control experimental design is used. What are its strengths and weakness?
- Q12)Explain the role and importance of computer in Educational Research.
- Q13) Write a detailed note on data processing and analysis.

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