



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/MHA/SEM-3/MHA-306/2010-11**

**2010-11**

**RESEARCH METHODOLOGY**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for any *ten* of the following :

10 × 1 = 10

- i) ..... constitutes the blueprint for the collection, measurement and analysis of data.
  - a) Research methodology    b) Research design
  - c) Sampling                      d) Bias.
- ii) Which of the following statements is correct ?
  - a) Research is not information gathering
  - b) Research is not transportation of facts
  - c) Research is not a strategy
  - d) Research is a systematic and intensive study directed towards a more complete knowledge of the subject studied.

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- iii) Good research requires the following *except*
- a) High ethical standard
  - b) All limitations documented
  - c) Data to be adequately analyzed and explained
  - d) Proper recommendation.
- iv) Researcher may use method of agreement as the logic base in
- a) Descriptive research      b) Exploratory research
  - c) Causal research              d) All of these.
- v) Following are the definite advantages of secondary data *except*
- a) Economic
  - b) Accurate
  - c) Time saving
  - d) Provide basis for comparison.



vi) Following are the disadvantages of Focus group interview *except*

- a) this technique can be used by managers to support their preconceived ideas
- b) the data is not at all projectable
- c) much of the results depend on the moderator
- d) appropriate to handle contingency.

vii) A ..... is a proposition which the researcher wants to verify.

- a) Problem
- b) Significance
- c) Hypothesis
- d) Conclusion.

viii) ..... sampling implies equal probability to every unit in the population.

- a) Simple Random
- b) Systematic Random
- c) Stratified Random
- d) Area.



ix) Characteristics of a good sample design are all the following *except*

- a) goal orientation                      b) measurability
- c) economy                                d) convenience.

x) At Z score 2.58, the selected proportion of area under the Normal curve is

- a) 90%                                        b) 95%
- c) 99%                                        d) none of these.

xi) Which one of the following is not a basic assumption of linear programming problem ?

- a) Certainty                                b) Risk
- c) Proportionality                        d) Additivity.

xii) Decision tree analysis assumes

- a) mutually exclusivity                  b) non-negative values
- c) low values                                d) real values.



**GROUP – B**

**( Short Answer Type Questions )**

Write short notes on any *three* of the following.

$$3 \times 5 = 15$$

2. Relevance of research in corporate hospital sector.
3. Population and the advantages of using sample instead of population in research.
4. Instrumentation error.
5. Ordinal scale *vs* Nominal scale
6. Null Hypothesis.

**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

7. What is research design ? Elaborate in detail different types of research designs. Why is a research design necessary for conducting a study ?  $3 + 9 + 3$
8. Distinguish between probability and non-probability samples. Explain the Judgement sample.

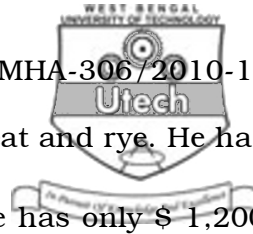


9. a) What are the application areas of 'Operation Research' in business organization emphasizing on health care industry ?
- b) A man has the choice of running either a hot snack stall or an ice-cream stall at a seaside resort during the summer season. If it is fairly cool summer, he should make Rs. 5,000 by running the hot snack stall, but if the summer is quite hot he can only expect to make Rs. 1,000. On the other hand, if he operates the ice-cream stall, the profit is estimated at Rs. 6,500 if the summer is hot, but only Rs. 1,000 if it is cool. There is a 40% chance of the summer being hot. Should he opt for running the hot snack stall or the ice-cream stall ?
10. A total of 1600 families were selected at random on a city to test the belief that high income families usually go to corporate hospital for health care need and low income families receive health care services from Government hospitals. The following results were obtained :

Income	Health care provider		Total
	Corporate	Government	
Low	494	506	1000
High	162	438	600
Total	656	944	1600

Test whether income and choice of health care provider are independent.

( Critical value of chi square for appropriate DE at 5% level is 3.841 ).



11. a) A farmer has 10 acres to plant in wheat and rye. He has to plant at least 7 acres. However, he has only \$ 1,200 to spend and each acre of wheat costs \$ 200 to plant and each acre of rye costs \$ 100 to plant. Moreover, the farmer has to get the planting done in 12 hours and it takes an hour to plant an acre of wheat and 2 hours to plant an acre of rye. If the profit is \$ 500 per acre of wheat and \$ 300 per acre of rye, how many acres of each should be planted to maximize profits ? Show graphically.
- b) Write in brief the essential components of all decision making.

10 + 5

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