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मासला - 004

Design of Experiments & Analysis (1080)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Answer **any five** questions.
5. Neat diagram must be drawn wherever necessary.
6. Figures to right indicate full marks.
7. Use of electronic pocket calculator is allowed.
8. Assume suitable data, if necessary.

1. a) "Research is much concerned with proper fact finding, analysis and evaluation." Do you agree with this statement ? Give reasons in support of your answer. **20**
b) Distinguish between Research methods and Research methodology.
2. a) "The task of defining the research problem often follows a sequential pattern." Explain. **20**
b) Describe fully the techniques of defining a research problem.
3. a) Explain the process of selecting a research problem. **20**
b) Explain the term 'Research Hypothesis' in context of Research design.
4. a) "Research design in exploratory studies must be flexible but in descriptive studies, it must minimize bias and maximize reliability." Discuss. **20**
b) What do you mean by 'Sample Design' ? What points should be taken into consideration by a researcher in developing a sample design for this research project.
5. a) What are the guiding considerations in the construction of questionnaire ? Explain. **20**

- b) Point out the possible sources of error in measurement. Describe the tests of sound measurement.
6. a) State the reasons why sampling is used in the context of research studies. 20
- b) Explain the meaning and significance of the concept of 'Standard Error' in sampling analysis.
7. a) What do you mean by the power of a hypothesis test ? How can it be measured ? Describe and illustrate by an example. 20
- b) Explain with the help of suitable example, significance of the analysis of variance.
8. a) What are the different forms in which a research work may be reported ? Describe. 20
- b) Write a note on 'bibliography and its importance' in context of research report.
