

**PURBANCHAL UNIVERSITY**

**2020**

M. Sc. in Information System Engineering /First Semester/*Final*

Time: 03:00 hrs.

Full Marks: 45 /Pass Marks: 22.5

**MIE115: Research Methodology** (*New Course*)

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

*The figures in the margin indicate full marks.*

**Answer FIVE questions.**

**5×9=45**

1. What is scientific research? Describe the major steps involved in the scientific research process? 2+7
2. Differentiate between probability and non-probability sampling. Briefly discuss simple random, stratified and multistage sampling with example. 3+6
- 3(a) Discuss significance of a research design. 3  
(b) Explain the meaning of the following in context of research design: 3×2=6
  - (i) Extraneous variable
  - (ii) Confounded relationship
  - (iii) Experimental and control group
4. Discuss meaning and importance of data reduction. Discuss steps of data processing. 4+5
5. What are the main characteristics of report? Briefly describe the uses of the following in the research report: bibliography, appendix and glossary. 3+6
6. Write short notes on any THREE: 3×3=9
  - (a) Socio-ethical issues
  - (b) Research proposal
  - (c) Importance of data
  - (d) Methods of data collection



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