

M.Sc. (Electronics) (NEP Pattern) Semester-I
NEP-35 / PSCELT105 - Paper-V : Research Methodology

P. Pages : 2

Time : Three Hours



GUG/S/25/15093

Max. Marks : 80

-
- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat and label diagrams wherever necessary.

Either:

1. a) What do you understand by term Research problem? What are the objectives of Research problem? 8
- b) List and explain the characteristics of good research problem. 8

OR

- c) How to define and formulate a research problem?
How do you organize your research work? 8
- d) What is critical literature review? State importance of literature review in defining a problem. 8

Either:

2. a) What are the various means of conducting literature survey in modern times? 8
- b) Write the steps for sampling procedure. Explain the characteristics of Good sampling design. 8

OR

- c) What is a Questionnaire? Explain the process of construction of a questionnaire. 8
- d) What is the significance of Questionnaire in data collection. 8

Either:

3. a) Define Research Design? Explain the need and features of a good research design. 8
- b) Explain various types of Research Design. 8

OR

- c) Write short note on: 8
i) Induction
ii) Deduction.
- d) Explain the following classification of research design: 8
i) Descriptive and ii) Experimental

Either:

- | | | | |
|-----------|----|--|----------|
| 4. | a) | Describe structure and components of scientific reports. | 8 |
| | b) | Explain types and significance of report. | 8 |

OR

- | | | | |
|-----------|------|---|----------|
| | c) | Describe the following. | 8 |
| | i) | Bibliography and Webliography and | |
| | ii) | Referencing and perfect pages. | |
| | d) | Describe the following related to publication ethics. | 8 |
| | i) | Definition | |
| | ii) | Introduction and | |
| | iii) | Importance | |
| 5. | a) | What are primary and secondary sources of research? | 4 |
| | b) | Explain the following methods of research: | 4 |
| | i) | Observation method | |
| | ii) | Case study method. | |
| | c) | Describe prediction and explanation related to research design. | 4 |
| | d) | What are research publication ethics? | 4 |
