

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

P. Pages : 2

Time : Three Hours



**GUG/W/23/15093**

Max. Marks : 80

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

**Either:**

1. a) What is mean by Research? State & explain importance of Scientific Research. 8  
b) Explain how you can select and formulate the research? 8

**OR**

- c) What is a literature reviews? Explain why it is important in defining the research problem? 8  
d) Describe research methods vs research methodology with suitable example. 8

**Either:**

2. a) Explain any four methods of research. 8  
b) Describe: 8  
i) Case Study method  
ii) Brainstorming technique

**OR**

- c) Explain the difference between interview method and group discussion. 8  
d) Describe sampling method and questionnaire method. 8

**Either:**

3. a) What is the principle of research design? Why it is needed? 8  
b) Describe related to research design: 8  
i) induction  
ii) deduction

**OR**

- c) Explain classification of research design. 8  
d) What are observations, facts and prediction? 8

**Either:**

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|-----------|----|--|----------|
| <b>4.</b> | a) | Explain how you can write research report. | <b>8</b> |
|           | b) | Explain types and significance of report.  | <b>8</b> |

**OR**

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|-----------|----|---|----------|
|           | c) | What is meant by publication ethics? Explain its importance.              | <b>8</b> |
|           | d) | Explain illustrations of figures, graph and tables in research paper.     | <b>8</b> |
| <b>5.</b> |    | Solve the followings.   |          |
|           | a) | Distinguish between research methods and methodology.                     | <b>4</b> |
|           | b) | Explain observation method and case study method.                         | <b>4</b> |
|           | c) | Give the features of good designing concepts relating to research design. | <b>4</b> |
|           | d) | Explain in short, the research publication ethics.                        | <b>4</b> |

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