

M. Tech.-III (Electronics V.L.S.I.) (CBCS – 2015 Course) :

WINTER - 2018

SUBJECT : SELF – STUDY : PAPER – I : RESEARCH METHODOLOGY

Day : Saturday
Date : 08/12/2018

W-2018-3219

Time : 11.00 AM TO 02.00 PM
Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
 - 3) Draw neat diagrams, **WHEREVER** necessary.
 - 4) Answers to both the sections should be written in **SEPARATE** answer book.
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SECTION – I

Q.1 Define research. Explain the need and importance of research in social sciences. **(10)**
Briefly explain the types of research.

OR

Discuss the need for multi-disciplinary and inter-disciplinary approach in research.

Q.2 Write in detail about the essential components of good research proposal and what **(10)**
are the factors affecting the research design.

OR

What is research problem? Explain the steps in formulating the research problem.

Q.3 Why mathematical model is necessary in research? Classify it and explain any one **(10)**
method.

OR

Write short notes on

- i) Continuous model
- ii) Discrete model.

SECTION – II

Q.4 Describe the common software used for analysis of data. **(10)**

OR

Explain in brief various statistical measures used in Research Studies.

Q.5 Explain the types of errors for design of experiments with proper examples. **(10)**

OR

Examine critically the different experimental methods of data collection.

Q.6 Describe the characteristics and logical format for writing a research report. **(10)**

OR

Write short notes on

- i) Patents
- ii) Digital lab

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