

DEC-2018

II No. of Questions : 6]

954

SEAT No. :
[Total No. of Pages : 2

[5462]-678

**M.E. (Computer Engineering)
RESEARCH METHODOLOGY
(2017 Pattern) (Semester-I) (510101)**

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw neat diagrams where necessary.

a) Explain the meaning of research. What are objectives and outcomes of research? With an example of research work, state the two significant objectives and outcomes. [9]

OR

b) What is need of code of ethics in research? State code of ethics for Employer, General Public and nation. [9]

a) Explain the purpose of literature survey. Explain with example the purpose and use of three different literature sources. [8]

OR

b) What is a research plan? What is use and relevance of Numerical Modeling, theoretical derivation & calculations and curve matching? [8]

a) Explain need for statistical analysis. With example state the one dimensional and two dimensional measures used in research. [8]

OR

b) State the use of following tools: [8]

- i) PSPP
- ii) SOFA
- iii) AQUAD
- iv) CAT

OR

P.T.O.

Q4) a) State the importance of optimization in Engineering Research. What is gradient optimization? Explain with example. [9]

OR

b) What are advantages and limitations of Simplex method for optimization? Explain with example the terms Cost function and constraints with respect to simplex method. [9]

Q5) a) When to use surveys in research? Discuss the ergonomics and human factors to be taken care in surveys with examples. [8]

OR

b) Discuss the guidelines for conducting surveys. comment on survey delivery, respondents selection and timelines. [8]

Q6) a) What are methods to report research findings? What are guidelines for ensuring the Quality of thesis? [8]

OR

b) State the guidelines for ensuring the Quality of Research paper. What are expectations for research presentation? [8]

[5462]-678