Printed Pages: 01 **Subject Code:MTCC101**

Paper Id: **299001** **Roll No:** | | | | | | | | | | |

M TECH

(SEM-I) THEORY EXAMINATION, 2018-19

RESEARCH PROCESS & METHODOLOGY

Time: 03 Hours ***M.M.: 70***

Notes: *Assume any Missing Data.*

SECTION A

Q1: Attempt *all* parts. All parts having equal marks. (7x2=14)

a. Differentiate between research method and methodology.

b. Discuss the objectives of a research.

c. Give the classification of research design?

d. What are the various steps of research process?

e. Differentiate between probability and non-probability methods of sampling techniques.

f. Distinguish between null hypothesis and alternative hypothesis.

g. What is a research report?

SECTION B

Q.2.: Attempt *Three* parts (3x7=21)

a. What do you mean by research? Discuss the significance of research.

b. Enumerate the difference methods of data collection. Clearly explain the difference between collection of data through questionnaires and schedules.

c. Discuss the before-and-after with and without control design in context of a research design.

d. Discuss the Karl Pearson's coefficient of correlation. Calculate the Karl Pearson's coefficient of correlation from the following data:

Roll No. of students	Marks in Math	Marks in Science
1	48	45
2	35	20
3	17	40
4	23	25
5	47	45

e. Explain the significance of research report and narrate the various steps involved in writing such a report.

SECTION C

Q3. Attempt *all* parts (5x7=35)

a. What is a research problem? Explain the techniques involved in defining a research problem.

b. Explain the meaning and significance of research design. Differentiate between Random Replication and Randomized Block research designs.

c. Discuss the stratified random sampling design with a suitable example. How would you select such a sample?

d. What is a hypothesis? Discuss the parametric tests of hypotheses in detail.

e. Write short notes on the following:

(i) Indexing and citation of journals (ii) Intellectual property.

http:\\www.aktuonline.com