

C.U.SHAH UNIVERSITY

Wadhwan City

Summer Examination-2014

Date: 23/06/2014

Subject Code :5TE02RSM1

Subject Name: **Research Methodology**

Branch/Semester:- M.Tech(CE,MECH,EC)/II

Time:02:00 To 5:00

Examination: Regular

Instructions:-

- (1) Attempt all Questions of both sections in same answer book / Supplementary
- (2) Use of Programmable calculator & any other electronic instrument is prohibited.
- (3) Instructions written on main answer Book are strictly to be obeyed.
- (4) Draw neat diagrams & figures (If necessary) at right places
- (5) Assume suitable & Perfect data if needed

SECTION-I**Q.1. Attempt all questions. (07)**

- a) Enlist various types of research.
- b) Enlist major characteristics of research.
- c) Enlist inherited qualities of a researcher.
- d) Define '**research design**'.
- e) Discuss the significance of research.
- f) Justify the need of a hypothesis in research.
- g) Differentiate the explanatory and exploratory researches.

Q.2. Attempt all questions.

- a) Briefly describe the steps involved and needed in a research process. (5)
- b) Define research approach. Why is it needed? Describe various research approaches. (5)
- c) 'Literature review is the basic necessity of a research' justify. (4)

OR

- a) Briefly describe at least five considerations in selecting a research problem. (5)
- b) Explain various steps in formulation of a research problem. (5)
- c) Discuss how to develop a theoretical framework for the purpose of research. (4)

Q.3. Attempt all questions.

- a) Briefly describe the steps involved and needed in a research process. (7)
- b) Define research observation. What are basic observation methods? Explain any two. (7)

OR

- a) Compare the characteristics and theories of qualitative and Quantitative research design methods. (7)
- b) Research gap identification is pivotal to defining any research problem. How? (7)



SECTION-II

Q.1. Attempt all questions.

(07)

- a) Define the following terms in connection to research :
- Accuracy
 - Reliability
 - Sensitivity
 - Plagiarism
- b) Enlist the quality indices of research publications.
- c) What is importance of acknowledgments in a research publication?
- d) Write your view for getting a research patented and justify the same.

Q.2. Attempt all questions.

- a) Write a short note on 'Research ethics'. (5)
- b) Briefly describe the structure and components of thesis and reports. (5)
- c) Discuss the Fundamental concept of Trademark. Use suitable example. (4)

OR

- a) Briefly describe the issues and considerations related to plagiarism in context to research. (5)
- b) Explain the statistical methods for testing and evaluation. (5)
- c) Give examples for 'how to write references' for journal and conference publications. (4)

Q.3. Attempt all questions.

- a) Briefly describe the steps involved and needed in an effective oral presentation of a research. (7)
- b) Define the terminology 'copy right'. What are its basic characteristics and effects? Explain. (7)

OR

- a) What do you mean by reproducibility in a research work? Explain for the following research objective. (7)
- "Within minutes of the government announcing an increase in railway passenger and freight tariffs, some TV channels were repeating visuals from last Saturday when Prime Minister talked about "bitter medicine" to rescue the faltering economy, even at the cost of his party's popularity. Economists reckon that the statements by the PM and his ministers, along with Friday's hike, should be seen as pointers to some tough decisions in first budget as finance minister."*
- b) 'Industrial research and design' is being encouraged as a policy for standard research. How? (7)

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