

Research Methodology
(R22DHS53)

QUESTION BANK

M.TECH
(I YEAR – I SEM)
(2023-24)

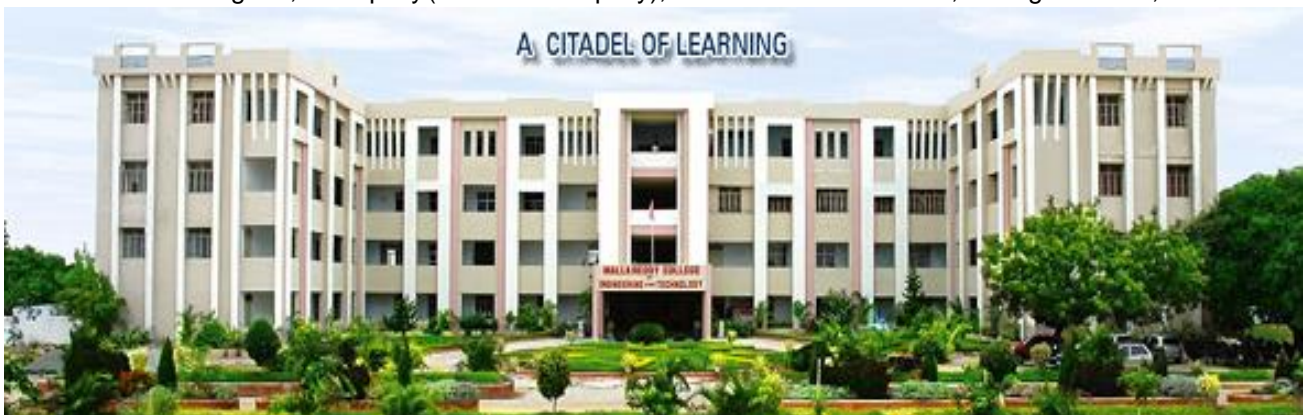
Department of Electronics and Communication Engineering



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
(Autonomous Institution - UGC, Govt. of India)

Recognized under 2(f) and 12 (B) of UGC ACT 1956

(Affiliated to JNTUH, Hyderabad, Approved by AICTE - Accredited by NBA & NAAC – 'A' Grade - ISO 9001:2015 Certified)
Maisammaguda, Dhulapally (Post Via. Kompally), Secunderabad – 500100, Telangana State, India



Code No: **R22DHS53****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

M.Tech I Year I Semester Supplementary Examinations, August 2023**Research Methodology****(MD, TE, VLSIES & ASP)**

Roll No									
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Time: 3 hours**Max. Marks: 60****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 10 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

PART-A (10 MARKS)**Write all answers of this PART at one place)**

- | | | | |
|----------|---|--|-------------|
| 1 | A | What are the objectives of Research? | [1M] |
| | B | Discuss any four problems faced by researchers in India? | [1M] |
| | C | What is the difference between systematic and stratified sampling? | [1M] |
| | D | What are the primary data collection methods? | [1M] |
| | E | What is research design and need for research design? | [1M] |
| | F | What is the hypothesis in research? | [1M] |
| | G | What is the difference between ANOVA and Kruskal-Wallis test? | [1M] |
| | H | State the methodology of research. | [1M] |
| | I | List down the steps involved in writing a report? | [1M] |
| | J | What is plagiarism? How plagiarism can be avoided? | [1M] |

PART-B (50 MARKS)**SECTION-I**

- | | | | |
|----------|---|--|-------------|
| 2 | A | Explain the terms Fundamental Research, Basic Research, Applied Research and Industrial Research with suitable examples. | [5M] |
| | B | Literature review helps in identifying a suitable research problem. Comment. | [5M] |

OR

- | | | | |
|----------|---|---|-------------|
| 3 | A | Elaborate on common errors committed by researchers in selecting the research problem. | [5M] |
| | B | What is a literature review?
Explain the effective literature studies approach for a research problem. | [5M] |

SECTION-II

- | | | | |
|----------|---|--|-------------|
| 4 | A | What do you mean by "Sample Design"? Under what circumstances one should use a probability sample? | [5M] |
| | B | What is statistical data analysis in research methodology? | [5M] |
- OR**
- | | | | |
|----------|---|--|-------------|
| 5 | A | What is collection of data explain primary and secondary source to collect the data? | [5M] |
|----------|---|--|-------------|

B What is data processing and write about analysis methods? [5M]

SECTION-III

6 A How do you formulate a research hypothesis? What is the purpose of the formulation of hypothesis? [5M]

B What is difference between deductive and inductive research? [5M]

OR

7 A Write about various components of research design? [5M]

B Describe some of the important research designs used in experimental hypothesis-testing research study. [5M]

SECTION-IV

8 A Describe some of the important research designs used in experimental hypothesis-testing research study. [5M]

B In an experiment on the immunisation of goats from Anthrax, the following results were obtained. Derive your inference on the effectiveness of vaccine. [5M]

	Survived	Died	Total
Inoculated	15	2	17
Non inoculated	4	10	14
Total	19	12	31

OR

9 A What is Hypothesis-testing? [5M]

B Test whether the variances are significantly different in the following sample. [5M]

Sample I (X1)	45	46	49	25	17	18	13	56	58
Sample II (X2)	47	49	43	27	29	38	37		

SECTION-V

10 A Explain the factors considered for technical report writing. [5M]

B Write the procedure for plagiarism analysis. [5M]

OR

11 A Identify different formats of Research proposal writing. Outline and explain the format of experimental report writing. [5M]

B What is trademark? Describe role of trademark in business. [5M]

Code No: R20DHS53

R20

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

M.Tech I Year I Semester Supplementary Examinations, November 2022

Research Methodology
(MD, TE, CSE, VLSIES & ASP)

Roll No									
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Time: 3 hours

Max. Marks: 70

Answer Any **Five** Questions
All Questions carries equal marks.

- 1 A What do you mean by Research? Explain its significance in modern times. [7M]
 B Explain the Research process with a suitable diagram. [7M]
- 2 A “Research is much concerned with proper fact finding analysis and evaluation”. Do you agree with this statement- Justify. [7M]
 B Explain different types of research studies. [7M]
- 3 A Explain the necessity of defining a Research Problem. [7M]
 B What are the various means of conducting literature survey in modern times? [7M]
- 4 A Explain essentials that are to be considered by a researcher while formulating Research Problem. [7M]
 B What is a Research Problem? Explain Components of Research Problem. [7M]
- 5 A What is a Questionnaire? Explain the process of construction of a questionnaire. [7M]
 B Evaluate the different methods of Collecting Secondary data. [7M]
- 6 A What is the significance of Questionnaire in data collection. [7M]
 B What is the importance of tabulation in data collection? Explain the different parts of a table. [7M]
- 7 A Write a detailed note on sampling and its design. [7M]
 B Describe the various measures of relationships often used in context of research studies. [7M]
- 8 A What is Hypothesis? What is the significance of formulating the hypothesis in research work? [7M]
 B Discuss the steps in preparation of Report. [7M]

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
 (Autonomous Institution – UGC, Govt. of India)
M.Tech I Year I Semester Regular/Supplementary Examinations, June 2022
Research Methodology
(MD, TE, CSE, VLSIES & ASP)

Roll No										
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Time: 3 hours

Max. Marks: 70

Answer Any **Five** Questions
 All Questions carries equal marks.

- | | | | |
|----------|---|--|-------------|
| 1 | A | Define Research process and Explain various steps in research process | [7M] |
| | B | Describe the different types of research. Distinguish between an experiment and a survey | [7M] |
| 2 | A | Write a Short notes on
a) Objectives of Research
b) Criteria of a good research | [7M] |
| | B | Distinguish between Research Methods and Research Methodology. | [7M] |
| 3 | A | Explain the Process of identification of Research problem. | [7M] |
| | B | How do you carry Literature Review? What are the advantages of the same? | [7M] |
| 4 | A | Define Research Problem and explain the techniques involved in defining a Research Problem. | [7M] |
| | B | Explain different sources of Research problem by giving suitable examples. | [7M] |
| 5 | A | Define Research Design? Explain the need and features of a good design. | [7M] |
| | B | Explain various types of Research Design. | [7M] |
| 6 | A | Distinguish between Primary Data and Secondary Data | [7M] |
| | B | Explain the classification of data with suitable examples. | [7M] |
| 7 | A | Explain the basic concept of sampling. How do you determine the sample size of a research study. | [7M] |
| | B | Discuss the probability sampling with merits and demerits? | [7M] |
| 8 | A | Define Research report and Explain various components of Research report. | [7M] |
| | B | Lucidly present the stages for preparation of a research report. | [7M] |

Code No: R20DHS53**MALLA REDDY COLLEGE OF ENGINEERING &
TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****M.Tech I Year I Semester Regular Examinations, July 2021****Research Methodology****(MD, TE, CSE, VLSI&ES & ASP)**

Roll No									
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Time: 3 hours**Max. Marks: 70****Answer Any Five Questions**

All Questions carries equal marks.

- 1** Examine the concept of research, its significance, cognize in business management [14M]
distinguish between different kinds of research available for business management
with suitable illustrations.
- 2** How would you define research, its significancy, components of good research [14M]
study and distinguish between exploratory research and conclusive research and
brief on the research process?
- 3** What are various approaches to study the research problem & formulation of [14M]
objectives and brief on the role of literature review in formulating a research
problem?
- 4** Why do we formulate hypotheses in research? What criteria should be fulfilled [14M]
while developing hypothesis and differentiate between various types of
hypotheses?

- 5** Examine the importance, characteristics of research design and how research designs are classified and brief on how experimental design is different from a descriptive research design. **[14M]**
- 6** What are different data collection options available to the researcher? Compare and contrast them and brief on the ethical issues in collecting data. **[14M]**
- 7** How do you determine sample? Explain different types of probability and non-probability sampling and brief on statistics used in sample size selection. **[14M]**
- 8** Explain the purpose of research report? What are various stages of report writing and explain criteria for good research report. **[14M]**
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Code No: R20DHS53

R20

**MALLA REDDY COLLEGE OF ENGINEERING &
TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**M.Tech I Year I Semester Supplementary Examinations, December
2021**

**Research Methodology
(TE, VLSI&ES & ASP)**

Roll No									
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Time: 3 hours

Max. Marks: 70

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

SECTION-I

- 1 Define research, motives for business research, and distinguish between fundamental research and applied research and examine the series of interrelated steps in management research process. [14M]

OR

- 2 What do you understand by research methodology, state the types of research, and apprehend the steps that need to be accomplished in order to complete the management research study? [14M]

SECTION-II

- 3 How do you formulate a research problem? What considerations should a researcher keep in mind while formulating a research question and discuss the importance of literature review in approaching a research problem? [14M]

OR

- 4 Discuss the purpose of hypothesis in marketing research, highlight the procedure of developing a good hypothesis and how is a null hypothesis tested? [14M]

SECTION-III

- 5 What is the purpose of research design? Explain the elements, principals of experimental research design? and brief on types of research design suitable of researching the online education system in India. [14M]

OR

- 6 Discuss different methods of collecting data, its merits and demerits and brief on the ethical issues in collecting data. [14M]

SECTION-IV

- 7 What is the significance of sample selection, explain the factors [14M]
should be considered while sample selection and brief on
various sampling methods?

OR

- 8 Discuss the role of measures of central tendency in data [14M]
analysis and what test is used to examine the statistical
significance of correlation coefficient?

SECTION-V

- 9 Examine the role of analysis of variance in research? Discuss the [14M]
procedure involved in analysis of variance; tabulate the ANOVA
table in both the one-way and the two-way classification.

OR

- 10 Examine the basic principles and techniques of writing the [14M]
research proposal and brief on the various stages, criteria for
good research report.
