



Siddaganga Institute of Technology, Tumakuru-572 103

(An Autonomous Institution affiliated to VTU, Belagavi, Approved by AICTE, New Delhi)

First Semester Master of Technology Examinations June 2023

Research Methodology and IPR

Time: 3 Hours

Max. Marks: 100

Note : 1. Revealing of Identity in any form in the answer book will be treated as malpractice.
2. Answer any five questions choosing one full question from each unit.

Unit - I

	M	BL	CO	PO	PSO
1 a) What are research objectives? Also, define the term research.	10	2	1	1,2	
b) Explain types of research?	10	2	1	1,2	

OR

2 a) What are the criteria for good research? Also, differentiate between method and methodology.	10	2	1	1,2	
b) What are the typical ethical conduct in research? Please describe informed consent in research.	10	2	1	1,2	

Unit - II

3 a) List types of literature sources.	10	2	2	1,2	
b) What are problem solving steps? Draw typical root cause analyzing diagram.	10	2	2	1,2	

OR

4 a) Explain necessity of defining the problem and give three examples of research problems in your subject area.	10	2	2	1,2	
b) A road is recently made but within week it is showing multiple cracks, find the root cause of cracks appearing in the road.	10	2	2	1,2	

Unit - III

5 a) Explain the meaning and importance of research design.	10	2	3	1,2	
b) What are the steps in sample design? Write each steps in details.	10	2	3	1,2	

OR

6 a) Write down 10 key questions which help us to make good decisions during research design.	10	2	3	1,2	
b) Explain key point of good sample design.	10	2	3	1,2	

Unit - IV

7 a) Explain most widely classification of measurement scales.	10	2	4	1,2	
b) Describe fully the research report writing steps.	10	2	4	1,2	

OR

8 a) What are the sources of error in measurement? Also, explain tests of sound measurement.	10	2	4	1,2	
b) Explain the followings:					
i) Characteristics of hypothesis					
ii) Null and alternative hypothesis					
iii) Two-tailed and one-tailed test					
iv) Type-I and Type-II error					
v) Components of a research paper (layout wise)	10	2	4	1,2	

Unit - V

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|-----------|----|--|----|---|---|-----|
| 9 | a) | What are the salient features of Indian patent act? | 10 | 2 | 5 | 1,2 |
| | b) | What is the role of activity WIPO? | 10 | 2 | 5 | 1,2 |
| OR | | | | | | |
| 10 | a) | What is the concept of IPR? List all related act with year of implemented. | 10 | 2 | 5 | 1,2 |
| | b) | Write notes on the following: | | | | |
| | | i) Patent | | | | |
| | | ii) Copyright | | | | |
| | | iii) Trademarks | | | | |
| | | iv) Industrial design | | | | |
| | | v) Trade secrets | 10 | 2 | 5 | 1,2 |
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