

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

M.E/MCA DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025

First Semester

RM4151/PRMT2411 – Research Methodology and IPR
(Common to all Branches)
Regulations – 2021/2024

Duration : 3 Hrs

Maximum : 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BLT	CO	Marks
1.	What is Research methodology?	L1	1	2
2.	Explain the concept of Surveys.	L2	1	2
3.	What is sampling?	L2	2	2
4.	Explain the difference between collection of data through questionnaires and instruments.	L3	2	2
5.	What is hypothesis testing?	L1	3	2
6.	What is multivariate analysis?	L3	3	2
7.	What is Intellectual property rights? Give examples.	L2	4	2
8.	What is trademark?	L3	4	2
9.	State the objectives and benefits of patent.	L1	5	2
10.	What is meant by grant of patent?	L2	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a Describe the quantitative and qualitative research techniques? Explain with suitable examples.	L2	1	16
	Or			
	b Explain observation studies. Discuss the use of secondary data.	L2	1	16
12.	a i List the primary data collection methods in qualitative research and discuss their benefits and limitations.	L2	2	6
	ii Analyze the effectiveness of random sampling in reducing sampling bias by comparing it with two other sampling techniques based on given case studies.	L4	2	10
	Or			
	b i Describe the differences between probability and non-probability sampling techniques, including examples of each type.	L2	2	6
	ii A researcher aims to study the dietary habits of a population of 5,000 students. Using stratified sampling with 5 subgroups (one for each dietary preference type), calculate the number of samples required from each subgroup to achieve a total sample size of 250, ensuring proportionate representation.	L4	2	10

13.	a	i	Define the term 'hypothesis' in research and explain the role of null and alternative hypotheses.	L2	3	6
		ii	Given the following data on two sets of test scores: Set A = [72, 75, 78, 80, 85] and Set B = [68, 70, 75, 78, 79], apply the t-test for independent samples to determine if there is a statistically significant difference between the two sets, using a significance level of 0.05.	L3	3	10
Or						
	b		Explain the steps involved in writing a research report. Explain the layout of a research report in detail.	L2	3	16
14.	a		Explain the role of UNESCO in IPR maintenance.	L2	4	16
	Or					
	b		What is the role of IPR in protecting the biodiversity of a developing country? How are biological materials protected?	L2	4	16
15.	a		What are the objectives and benefits of a patent? Explain the features of patent in detail. With an example, explain the role of agencies in IP registration.	L2	5	16
	Or					
	b		Explain the various types of patent applications. Explain the process of e-filing procedure in detail.	L2	5	16