



**Marking Scheme SET 1
End-Sem Examination-I, Winter 2025**

Academic Year: 2025-2026	Semester: I
Class: FYMTECH	Program: PG In VLSI & Embedded System
Branch Code:	Pattern: 2024
Name of Course: Research Methodology & IPR	Course Code: 2402505

Q. No.	Details	Max. Marks
Q.1.	Distinction: Research Techniques vs. Research Methodology (3 Marks). Explanation: Essential criteria for a good research study (3 Marks).	[6]
Q.2.	Description: Taguchi Method (2 Marks). Explanation: Steps for planning experiments/simulations (4 Marks).	[6]
Q.3.	(a) Discussion on Strategy of Experimentation (4 Marks) and Four guidelines (4 Marks). OR (b) Description of Basic Statistical Concepts (4 Marks) and Explanation of Regression Approach to ANOVA (4 Marks). (c) Explanation of fundamentals of GA (4 Marks) and Simulated Annealing (SA) (4 Marks). OR (d) Explanation of Sensitivity Theory (4 Marks) and its applications in the design of experimental systems (4 Marks).	[8] [8] [8] [8]
Q.4.	(a) Explanation of general Procedure for Hypothesis Testing (4 Marks), Detail on Test Statistics (2 Marks), and Critical Region (2 Marks). OR (b) Description of hypothesis testing procedure for the Difference of Two Proportions (5 Marks) and Industrial application (3 Marks). (c) Explanation of Chi-square Test for Independence of Attributes (5 Marks) and Cautions in using Chi-square tests (3 Marks). OR (d) Description of Chi-square Test for the Difference of more than Two Proportions (5 Marks) and Valid conditions (3 Marks).	[8] [8] [8] [8]
Q.5.	(a) Definition of IPR (2 Marks) and Explanation of key provisions of TRIPS (6 Marks).	[8]



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	<p>OR</p> <p>(b) Explanation of Plagiarism (3 Marks), Discussion on citation and acknowledgement (5 Marks).</p> <p>(c) Explanation of Significance of Report Writing (3 Marks) and Detail on Different Steps in Writing a Report (5 Marks).</p> <p>OR</p> <p>(d) Description of Layout of the Research Report (3 Marks), Explanation of Mechanics of Writing (3 Marks) and Precautions (2 Marks).</p>	<p>[8]</p> <p>[8]</p> <p>[8]</p>
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