



**Department of Artificial Intelligence and Machine Learning**

Course Code: AI255TBA

Sem: V Semester

Duration: 120 Minutes

Date: 29/01/2025

Maximum Marks: 50

Quiz Marks: 10

**IMPROVEMENT TEST**

**Artificial Intelligence Integrated Software Engineering**

SL. No	Questions	M	BT	CO
<b>PART-A: QUIZ</b>				
1	What are the uses of Verification and Validation in Software Testing?	2	1	1
2	What do you mean by Regression testing?	2	1	1
3	List the Parts of Automation Testing.	2	1	1
4	What are the advantages of Software Testing?	2	1	1
5	Identify the common Machine Learning Algorithms used in the software fault prediction	2	1	1
<b>PART-B</b>				
1	a) Discuss the advantages of Software inspection over Software Testing.	5	2	2
	b) Summarize the steps involved in the traditional testing process.	5	2	2
2	a) Explain the three stages of the testing process involved in the Commercial Software Systems.	5	2	2
	b) Consider a Simple Calculator, which comprises of add (a, b), subtract (a, b), multiply (a, b), and divide (a, b) methods. What test cases would you include to ensure the correctness of the operations.	5	3	2
3	a) Summarize the applications of machine learning in software testing.	5	2	4
	b) Discuss Test Driven development.	5	2	2
4	a) Elaborate Generic Test Oracle Structure.	5	2	4
	b) Summarize Test Oracle Based on Machine Learning Strategy.	5	2	4
5	a) How do you implement Test Oracles Structures based on Supervised and un-Supervised Learning Techniques with an Example.	10	3	4
<b>Course Outcome</b>				
CO1	Summarize the activities in Software Engineering and the use of artificial Intelligence in Software Engineering			
CO2	Competence in software requirements analysis and software design			
CO3	Demonstrate the use of modern tools for software design by exhibiting teamwork through oral presentations and reports			
CO4	Apply AI techniques to automate software engineering tasks such as testing, debugging, and code			