

## **LESSON PLAN**

**Name of the Faculty** : **RAVINDER KUMAR MEHRA**  
**Discipline** : **Computer Science & Engineering**  
**Semester** : **8<sup>TH</sup>**  
**Subject** : **SOFTWARE TESTING**  
**Lesson Plan Duration** : **15 weeks (from JAN 2021 to MAY 2021)**

\*\*Work Load(Lecture/Practical) per week (in hours): Lectures:4

Week	Theory	
	Lecture Day	Topic(including assignment/test)
1 <sup>st</sup>	1 <sup>st</sup>	Overview of Software Evolution
	2 <sup>nd</sup>	What is software testing and why it is so hard?,
	3 <sup>rd</sup>	SDLC, Testing Process
2 <sup>nd</sup>	4 <sup>th</sup>	Error, Fault, Failure
	5 <sup>th</sup>	Difference between Verificattion & Validation
	6 <sup>th</sup>	Test Cases, Testing Process
3 <sup>rd</sup>	7 <sup>th</sup>	Limitations of Testing
	8 <sup>th</sup>	Functional Testing
	9 <sup>th</sup>	Boundary Value Analysis, Equivalence Class Testing
4 <sup>th</sup>	10 <sup>th</sup>	Decision Table Based Testing, Cause Effect Graphing Technique.
	11 <sup>th</sup>	Sessional Exam First
	12 <sup>th</sup>	Structural Testing
5 <sup>th</sup>	13 <sup>th</sup>	Path Testing
	14 <sup>th</sup>	DD-Paths,Cyclomatic Complexity
	15 <sup>th</sup>	Graph Metrics
6 <sup>th</sup>	16 <sup>th</sup>	SOT 1
	17 <sup>th</sup>	Data Flow Testing, Mutation testing.
	18 <sup>th</sup>	Reducing the number of test cases:
7 <sup>th</sup>	19 <sup>th</sup>	Prioritization guidelines
	20 <sup>th</sup>	Priority category, Scheme
	21 <sup>st</sup>	Risk Analysis
8 <sup>th</sup>	22 <sup>nd</sup>	Regression Testing
	23 <sup>rd</sup>	Slice testing
	24 <sup>th</sup>	Class Test
9 <sup>th</sup>	25 <sup>th</sup>	Testing Activities

	26 <sup>th</sup>	Unit Testing
	27 <sup>th</sup>	Levels of Testing
10 <sup>th</sup>	28 <sup>th</sup>	Sessional Exam Second
	29 <sup>th</sup>	Sessional Discussion
	30 <sup>th</sup>	Integration Testing
11 <sup>th</sup>	31 <sup>st</sup>	System Testing
	32 <sup>nd</sup>	Debugging
	33 <sup>th</sup>	Domain Testing
12 <sup>th</sup>	34 <sup>th</sup>	SOT 2
	35 <sup>th</sup>	Object Oriented Testing
	36 <sup>th</sup>	Issues in Object Oriented Testing
13 <sup>th</sup>	37 <sup>th</sup>	Revision
	38 <sup>th</sup>	Class Testing, GUI Testing
	39 <sup>th</sup>	Object Oriented Integration and System Testing.
14 <sup>th</sup>	40 <sup>th</sup>	Testing Web Applications : Web Testing
	41 <sup>th</sup>	SOT 3
	42 <sup>nd</sup>	User Interface Testing, Usability Testing
15 <sup>th</sup>	43 <sup>rd</sup>	Security Testing, Performance Testing
	44 <sup>th</sup>	Database Testing, Post Deployment Testing
	45 <sup>th</sup>	Sessional 3