# VELAGAPUDI RAMAKRISHNA SIDDHARTHA ENGINEERING COLLEGE::VIJAYAWADA

(AUTONOMOUS) **DEPARTMENT OF IT** 

## DEPARTMENT OF IT MICRO LEVEL SYLLABUS

Class	B Tech	Regulation	VR20
Subject Code	20IT7402A	Year & Semester	IV YEAR, SEMESTER-I
Title of the Subject	Software Testing and Automation		

Unit No	Topics Covered (with Sub Topics)	Text Book	Chapter/S ection Number	Page Number
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	Evaluation of software testing		1.2	5-8
	Software Testing myths and facts		1.3	8-10
	Goals of software testing		1.4	10-12
	Software Testing definitions		1.6	14-15
	Model for software testing		1.7	15-16
	Effective software testing vs Exhaustive		1.8	16-21
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	Software Testing Terminology and		2	
	Methodology			
	Software Testing Terminology		2.1	33
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	Life cycle of a bug		2.1.2	35-37
	States of a Bug		2.1.3	37-38
	Why do bugs occur?		2.1.4	38-39
	Bugs affect Economics of Software Testing		2.1.5	39-40
	Bug classification based on criticality		2.1.6	40-41
	Bus Classification based on SDLC		2.1.7	41-43
	Testing Principles		2.1.8	43-46
	Software Testing Life Cycle		2.2	46-51
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	Testing Life Cycle Model		2.3.4	55-56
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	Testing Tactics		2.3.6	57-59
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	Verification of Requirements		3.3	70-71
	Verification of Objectives		3.3.1	71
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	How to verify high level design		3.4.1	74-76
	Verification of Low Level Design		3.5	76-77
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	Validation Activities		3.7.1	79-82
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	State Table Based Testing		4.3.4	116-119
	Decision Table Based Testing		4.4	119
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	Overview of Selenium Webdriver	1 1 2 1		

#### **Text Book(s):**

- [1]. Naresh Chauhan, "Software Testing Principles and Practices, Oxford University Press, 2010.
- [2]. Rajeev Gupta, "Agile automation and unified functional testing", Pearson 2017.
- [3]. David Burns, "Selenium 2 Testing Tools Beginner's Guide", Published by Packt Publishing Ltd, 2012.

#### **Reference Books:**

- [1]. Brian Marick, "The craft of software testing", Pearson Education, 2007
- [2]. Edward Kit, "Software Testing in the Real World", Pearson. 2002
- [3]. Perry, "Effective methods of Software Testing", 3rd Edition, John Wiley, 2006
- [4]. Meyers, "Art of Software Testing, 3rd Edition John Wiley. 2015
- [5]. Dr.K.V.K.K.Prasad, "Software Testing Tools", Dreamtech, 2009.

### E-resources and other digital material

- [1]. Prof. Rajib Mall, IIT Kharagpur, NPTEL SOFWARE Testing video. Available: https://nptel.ac.in/courses/106105150/, 2016
- [2]. Software testing MIT. Available: http://ocw.mit.edu/courses/electrical- engineering-and-computer- science/6-912-introduction-to-copyright-law-january- iap-2006/video-lectures/lecture-4-software-licensing/
- [3]. Gregory *Gay*. Associate Professor, Chalmers and the University of Gothenburg.Software Quality and Testing Spring 2022, https://youtu.be/OLbo92 MgtU
- [4]. Sanjai Rayadurgam Director,

https://www.coursera.org/lecture/introduction-software-testing/welcome-to-the-software-testing-and-automation-myKdt, 2020

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