DADI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTUK, Kakinada)
NAAC Accredited Institute
Recognized by UGC 2(F) and 12(B)
An ISO 9001:2008, 14001:2004 & OHSAS 18001:2007 Certified Institute
NH–16, Anakapalle, Visakhapatnam–531002, Andhra Pradesh

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
COURSE FILE

Name of the Course: Software Testing Methodologies   **Class and Branch :** III-II CSE

Department: Computer Science and Engineering   **Academic Year:** 2020-2021

Prepared by Course Instructor
Name : Mrs. A.Kamala Priya
Designation : Assistant Professor
Signature :
Date :

Reviewed by Course Co-Ordinator
Name :
Designation :
Signature :
Date :

Reviewed by Module Co-Ordinator
Name :
Designation :
Signature :
Date :

Reviewed by Program Co-Ordinator
Name :
Signature :
Date :

Reviewed by HOD
Name :
Signature :
Date :

Approved by Academic Convenor
Name :
Signature :
Date :

COURSE FILE CONTENTS

1.Vision and Mission of the Institute and Department

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19. CO - PO Attainment Process (as per the suggestion of NBA Co-Ordinator)

20. Closure Report of the Course/Course Review

Annexures:

(Suggest the Course Instructor to attach the Annexures at the end of the Course File)

1. Academic Calendar declared by JNTU Kakinada (and our Institution)

2. First Mid Time Table declared by JNTU Kakinada (and our Institution)

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5. Examinations Results declared by JNTU Kakinada

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7. Re Counting/Re Valuation Results declared by JNTU Kakinada

8. Examinations Results Analysis prepared by our Institution after RC/RV Results

9A. Remedial Classes information with necessary Proofs (List of students, date, Topic etc)

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10. Minutes of Course Co-Ordinator and Module Co-Ordinator

1.Vision and Mission of the Institute and Department

Vision of the Institute

Mission of the Institute

Vision of the Department
generate competent software professionals to become part of the industry and research organizations.

Mission of the Department

- To impart high quality professional training with an emphasis on basic principles of computer science and engineering.
- To impart moral and ethical values, and interpersonal skills to the students.
- To empower the students with the required skills by adopting bridge courses to meet industry requirements.
- To promote research based projects & activities in the emerging areas of technology convergence.

2. Syllabus of the Course

III Year B.Tech CSE II Semester		L	T	P	C
		4	0	0	3
	SOFTWARE TESTING METHODOLOGIES				

UNIT-I:
Introduction: Purpose of Testing, Dichotomies, Model for Testing, Consequences of Bugs,Taxonomy of Bugs.

Flow graphs and Path testing: Basics Concepts of Path Testing, Predicates, Path Predicates andAchievable Paths, Path Sensitizing, Path Instrumentation, Application of Path Testing.

UNIT-II:
Transaction Flow Testing: Transaction Flows, Transaction Flow Testing Techniques.

Dataflow testing: Basics of Dataflow Testing, Strategies in Dataflow Testing, Application ofDataflow Testing.

UNIT-III:
Domain Testing: Domains and Paths, Nice & Ugly Domains, Domain testing, Domains andInterfaces Testing, Domain and Interface Testing, Domains and Testability.

Paths, Path products and Regular expressions: Path Products & Path Expression, Reduction Procedure, Applications, Regular Expressions & Flow Anomaly Detection.

UNIT-IV:
Syntax Testing: Why, What and How, A Grammar for formats, Test Case Generation, Implementation and Application and Testability Tips.

Logic Based Testing: Overview, Decision Tables, Path Expressions, KV Charts, and Specifications.

UNIT – V:
State, State Graphs and Transition Testing: State Graphs, Good & Bad State Graphs, State Testing, and Testability Tips
Graph Matrices and Application:-Motivational overview, matrix of graph, relations, power of a matrix, node reduction algorithm.

UNIT -VI:
Software Testing Tools: Introduction to Testing, Automated Testing, Concepts of Test Automation, Introduction to list of tools like Win runner, Load Runner, Jmeter, About Win Runner ,Using Win runner, Mapping the GUI, Recording Test, Working with Test, Enhancing Test, Checkpoints, Test Script Language, Putting it all together, Running and Debugging Tests, Analyzing Results, Batch Tests, Rapid Test Script Wizard..

TEXT BOOKS:
T1. Software testing techniques – Boris Beizer, Dreamtech, second edition.
T2. Software Testing- Yogesh Singh, Camebridge

REFERENCE BOOKS:
R1. The Craft of software testing - Brian Marick, Pearson Education.
R2. Software Testing, 3rd edition, P.C. Jorgensen, Aurbach Publications (Dist.by SPD).
R3. Software Testing, N.Chauhan, Oxford University Press.
R4. Introduction to Software Testing, P.Ammann&J.Offutt, Cambridge Univ.Press.

3. Additional Reference Books, Journals, websites and E-links:

https://smartbear.com/learn/automated-testing/software-testing-methodologies/

https://www.guru99.com/testing-methodology.html

https://www.tutorialspoint.com/software_testing/index.htm

https://www.inflectra.com/ideas/topic/testing-methodologies.aspx

4. Gaps in the Syllabus to Meet Industry Requirements (if any)

- As per the industry levels the following are the known gaps of the _____ subject which is in the JNTU curriculum.
- .The _____ subject as per the curriculum is not matching with the _____

- The subject is not matching with real time applications

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE HANDOUT

Part – A

(Course Description, Course Objectives, Course Outcomes, Course Articulation Matrix)

PROGRAM : B.Tech CSE
CLASS and Semester : III B.Tech., II-Sem., CSE, Section-A&B
ACADEMIC YEAR : 2020-2021
COURSE NAME & CODE : Software Testing Methodologies
L-T-P STRUCTURE : 4-0-0
COURSE CREDITS : 3
COURSE INSTRUCTOR : Mrs. A. Kamala Priya
COURSE COORDINATOR :
PRE-REQUISITE : Strong programming skills (Knowledge of C), elementary data structures & algorithms , computer architecture and an introduction to concurrency

COURSE DESCRIPTION :

This course Covers the Fundamentals for various testing methodologies and describe the principles and procedures for designing test cases. Covers the topics that provide supports to debugging methods and acts as the reference for software testing techniques and strategies.

COURSE OBJECTIVES

The student will be able to

1. Study the basic concepts software testing.
2. Understand the basis path testing.
3. Learn about Testing techniques.
4. Understand the principles of testing strategies.
5. Learn various debugging methods.
6. Study testing tools.

COURSE OUTCOMES (COs)

After going through this course the student will be able to

1. Understand the basic testing procedures.
2. Able to support in generating test cases and test suites.
3. Able to test the applications manually by applying different testing methods and automation tools.
4. Apply tools to resolve the problems in Real time environment.

COURSE ARTICULATION MATRIX (Correlation between Cos & POs, PSOs):

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	-	-	-	-	-	-	-	-	-	-	1	1	-
CO2	2	2	2	-	-	-	-	-	-	-	-	2	2	-
CO3	2	2	3	-	-	-	-	-	-	-	-	2	3	-
CO4	1	1	-	-	-	-	-	-	-	-	-	1	2	-

1: Slight (Low)   2: Moderate (Medium)   3: Substantial (High)   - : None

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Part – B

COURSE DELIVERY PLAN

Name of the Course : Software Testing Methodlogies   **Class & Branch :** III B.Tech I Sem CSE A&B

Academic Year : 2020-2021   **Regulation**   : R16

S.No	Topic	No. of periods required	Teaching Learning Method	Proposed date of completion	Actual date of completion	HOD Review
	UNIT – 1					
1.	Syllabus, Course Objectives, Course outcomes	1	TLM1	1/4/2021	1/4/2021	
2.	**Introduction:** Purpose of Testing,	1	TLM1	3/4/2021	5/4/2021	
3.	Dichotomies, Model for Testing	1	TLM1	5/4/2021	6/4/2021	
4.	Consequences of Bugs, Taxonomy of Bugs.	1	TLM1	6/4/2021	7/4/2021	
5.	**Flow graphs and Path testing:** Overview	1	TLM1	7/4/2021	8/4/2021	
6.	Basics Concepts of Path Testing	1	TLM1	8/4/2021	10/4/2021	
7.	Path Predicates and Achievable Paths	1	TLM1	10/4/2021	15/4/2021	
8.	Path Sensitizing	1	TLM1	15/4/2021	16/4/2021	
9.	Path Instrumentation	1	TLM1	16/4/2021	19/4/2021	
10.	Application of Path Testing	1	TLM1	19/4/2021	20/4/2021	
	UNIT- 2					
11.	**Transaction Flow Testing:** Transaction Flows,	1	TLM1	20/4/2021	21/4/2021	
12.	Transaction Flow Testing Techniques.	1	TLM1	21/4/2021	22/4/2021	
13.	**Dataflow testing:** Basics of Dataflow Testing	1	TLM1	22/4/2021	24/4/2021	
14.	Basics of Dataflow Testing	1	TLM1	24/4/2021	26/4/2021	
15.	Strategies in Dataflow Testing	1	TLM1	26/4/2021	27/4/2021	
16.	Strategies in Dataflow Testing	1	TLM1	27/4/2021	29/4/2021	
17.	Strategies in Dataflow Testing-example	1	TLM1	29/4/2021	30/4/2021	
18.	Application of Dataflow Testing	1	TLM1	30/4/2021	1/5/2021	
	UNIT – 3					

19.	Domains and Paths	1	TLM1	1/5/2021	3/5/2021	
20.	Nice Domains	1	TLM1	3/5/2021	4/5/2021	
21.	Ugly Domains	1	TLM1	4/5/2021	5/5/2021	
22.	Ugly Domains	1	TLM1	5/5/2021	10/5/2021	
23.	Domain testing	1	TLM1	10/5/2021	11/5/2021	
24.	Domain testing	1	TLM1	11/5/2021	12/5/2021	
25.	Domains and Interfaces Testing	1	TLM1	12/5/2021	13/5/2021	
26.	Domain and Interface Testing	1	TLM1	13/5/2021	15/5/2021	
27.	Domains and Testability	1	TLM1	15/5/2021	17/5/2021	
28.	Paths, Path products and Regular expressions- overview	1	TLM1	17/5/2021	18/5/2021	
29.	Path Products & Path Expression	1	TLM4	18/5/2021	19/5/2021	
30.	Applications	1	TLM1	19/5/2021	20/5/2021	
31.	Regular Expressions	1	TLM1	20/5/2021	21/5/2021	
32.	Regular Expressions	1	TLM1	21/5/2021	24/5/2021	
33.	Flow Anomaly Detection.	1	TLM1	24/5/2021	27/5/2021	
	UNIT – 4					
39.	Syntax Testing – introduction	1	TLM1	27/5/2021	28/5/2021	
40.	Why, What and How	1	TLM1	28/5/2021	31/5/2021	
41.	A Grammar for formats	1	TLM1	31/5/2021	1/6/2021	
42.	Test Case Generation	1	TLM1	1/6/2021	2/6/2021	
43	Implementation and Application	1	TLM1	2/6/2021	3/6/2021	
44	Testability Tips	1	TLM1	3/6/2021	7/6/2021	
45	Logic Based Testing: Overview,	1	TLM1	7/6/2021	8/6/2021	
46	Decision Tables	1	TLM1	8/6/2021	10/6/2021	
47	Decision Tables - examples	1	TLM1	10/6/2021	14/6/2021	
48	Path Expressions	1	TLM1	14/6/2021	15/6/2021	
49	KV Charts – 2 , 3 , 4 variables	1	TLM4	15/6/2021	16/6/2021	
50	Specifications.	1	TLM4	16/6/2021	17/6/2021	
	UNIT -5					

51	State, State Graphs and Transition Testing	1	TLM1	17/6/2021	18/6/2021	
52	State Graphs	1	TLM1	18/6/2021	21/6/2021	
53	Good & Bad State Graphs	1	TLM1	21/6/2021	22/6/2021	
54	State Testing	1	TLM1	22/6/2021	23/6/2021	
55	Testability Tips	1	TLM1	23/6/2021	24/6/2021	
56	Graph Matrices and Application: Motivational overview	1	TLM1	24/6/2021	25/6/2021	
57	matrix of graph	1	TLM4	25/6/2021	28/6/2021	
58	matrix of graph	1	TLM1	28/6/2021	29/6/2021	
59	relations,	1	TLM1	29/6/2021	30/6/2021	
60	power of a matrix,	1	TLM1	30/6/2021	1/7/2021	
61	node reduction algorithm.	1	TLM4	1/7/2021	2/7/2021	
	UNIT-6 Software Testing Tools					
62	Introduction to Testing	1	TLM1	5/7/2021	6/7/2021	
63	Automated Testing	1	TLM1	6/7/2021	7/7/2021	
64	Concepts of Test Automation	1	TLM1	7/7/2021	10/7/2021	
65	, Introduction to list of tools like Win runner, Load Runner, Jmeter,	1	TLM1	10/7/2021	11/7/2021	
66	About Win Runner ,Using Win runner,	1	TLM1	11/7/2021	13/7/2021	
67	Mapping the GUI, Recording Test,	1	TLM1	13/7/2021	14/7/2021	
68	Working with Test, Enhancing Test, Checkpoints,	1	TLM1	14/7/2021	15/7/2021	
69	Test Script Language, Putting it all together,	1	TLM1	15/7/2021	17/7/2021	
70	Running and Debugging Tests,	1	TLM1	17/7/2021	19/7/2021	
71.	Analyzing Results,	1	TLM1	19/7/2021	22/7/2021	
72.	Batch Tests	1	TLM1	22/7/2021	23/7/2021	
73.	Rapid Test Script Wizard..	1	TLM1	23/7/2021	26/7/2021	

Total No. of classes Required to complete the syllabus: **73**

Course Instructor   Course Coordinator   Module Co-Ordinator   Program Co-Ordinator   HOD

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Part – C

Name of the Course : Operating Systems   **Class& Branch :** III B.Tech I Sem CSE A&B
Academic Year : 2020-2021   **Regulation**   : R16

Teaching Learning Methods			
TLM1	Chalk and Talk	**TLM5**	Activity based Learning
TLM2	LCD Projector	**TLM6**	Flipped//Blended Learning
TLM3	Tutorial (Problem Solving)	**TLM7**	Experiential Learning
TLM4	Participatory Learning	**TLM8**	Project Based Learning

ACADEMIC CALENDAR:

Description	From	To	Weeks
I Phase of Instructions-1	01/04/2021	31/07/2021	7
I Mid Examinations	27/01/2021	01/02/2021	1
II Phase of Instructions	02/02/2021	27/02/2021	4
II Mid Examinations	01/03/2021	05/02/2021	1
Preparation and Practicals			
Semester End Examinations			

EVALUATION PROCESS:

Evaluation Task	Cos	Marks
First Mid Examination	1,2,3	M1=15
First Online Examination	1,2,3	OL1=10
First Assignment	1,2,3	A1=5
First Mid Marks Total (X1)=M1+OL1+A1	1,2,3	X1=30
Second Mid Examination	4,5,6	M2=15
Second Online Examination	4,5,6	OL2=10
Second Assignment	4,5,6	A2=5
Second Mid Marks Total (X2) =M2+OL2+A2	4,5,6	X2=30
Cumulative Internal Examination Marks (X): (80% of Highest + 80% of Lowest)	1,2,3,4,5,6	X=30
Semester End Examinations	1,2,3,4,5,6	Y=70
Total Marks: X+Y	1,2,3,4,5,6	100

Course Instructor   **Course Coordinator**   **Module Co-Ordinator**   **Program Co-Ordinator**   **HOD**

6. PEOs and PO's

Program Educational Objectives

Program Educational Objectives of the UG in Computer science and engineering are:

PEO 1.
PEO 2.
PEO 3.
PEO 4
PEO 5

Programme Outcomes

The Program Outcomes of UG in Electronics and Communication Engineering are:

POs & PSO REFERENCE:

PO1	Engineering Knowledge	PO7	Environment & Sustainability	PSO1	
PO2	Problem Analysis	PO8	Ethics	PSO2	
PO3	Design & Development	PO9	Individual & Team Work		
PO4	Investigations	PO10	Communication Skills		
PO5	Modern Tools	PO11	Project Mgt. & Finance		
PO6	Engineer & Society	PO12	Life Long Learning		

Program Specific outcomes

PSO 1: Apply engineering principles to solve the problems of communications and Signal Processing area.

PSO 2: To use advanced tools to design and analyze the problems of VLSI & Embedded systems

PROGRAM OUTCOMES (POs):

PO 1:	**Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2:	**Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3:	**Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO 4:	**Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO 5:	**Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations
PO 6:	**The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice
PO 7:	**Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO 8:	**Ethic**s: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO 9:	**Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO 10:	**Communication**: Communicate effectively on complex engineering activities with the engineering

	community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO 11:	**Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO 12:	**Life-long learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

7. List of the Students of the Class with Roll Numbers

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

ANAKAPALLE

IIIB.TECH II SEM STUDENTS LIST (A.Y 2020-21)

<u>CSE-A</u>

S.NO	HT NO	NAME
1	18U41A0501	ADADI NAGA DIVYA
2	18U41A0502	ADARI SARVANI
3	18U41A0503	ANDUKURI HEMALATHA
4	18U41A0504	ANKIREDDY DEVA
5	18U41A0505	APPIKONDA LOHITHA
6	18U41A0506	ATTA NIKHITHA
7	18U41A0507	BOKKU MOHAN
8	18U41A0508	DAMAROUTHU GUNAVARDHAN
9	18U41A0509	ADARI LEENA GOWTHAMI
10	18U41A0510	BODDAPATI SANDHYA
11	18U41A0511	BODDEDA CHARAN
12	18U41A0512	BODDU SUSHMA SAHITHI
13	18U41A0513	BOLLA RANADHEER KRISHNA
14	18U41A0514	BOLLAPRAGADA KAAMESWARI SOWMYA
15	18U41A0515	BORA MOUNIKA
16	18U41A0516	BUDDHA PRATHYUSHA
17	18U41A0517	D CHANDINI
18	18U41A0518	DADI ARAVINDA
19	18U41A0519	GARIKINA NAVEEN
20	18U41A0520	GEMMELI SAI SUSHMA
21	18U41A0521	GUDUPU DEEPIKA
22	18U41A0522	KARRI SHYAM SRIDHAR
23	18U41A0523	HARI KRISHNAN G ANIL
24	18U41A0524	KANTIMAHANTHI SOWNDARYA
25	18U41A0525	KANURU HEMANTH
26	18U41A0526	KARRI PELSEA
27	18U41A0527	KONATHALA SRAVANI
28	18U41A0528	KONATHALA SRI PADMA HRUSHIKESH
29	18U41A0529	KURMADASU MAHESWARI
30	18U41A0530	MADDALA J V S SHIVANI
31	18U41A0531	MALLA GARISHMA
32	18U41A0532	MALLA KUSHAL MANOHAR
33	18U41A0533	MEDISETTI TEJASRI
34	18U41A0534	MEDISETTY RAMYA SREE
35	18U41A0535	MOLLETI MOUNIKA
36	18U41A0536	NAKKA HEMA
37	18U41A0537	THOTA SAI HARIKA
38	18U41A0538	ADARI KOMALI
39	18U41A0539	PAPPALA DHARANI
40	18U41A0540	PASALA RUCHITHA
41	18U41A0541	PATHIVADA PARAMESWARI
42	18U41A0543	POLAMARASETTY BHAVANA
43	18U41A0544	PURAM KEERTHI CHANDANA

44	18U41A0545	RAGULA SWARUPA
45	18U41A0546	REDDY LOHIT KUMAR
46	18U41A0547	REDDY THARUN
47	18U41A0548	SARAGADAM HARI SHANKAR
48	18U41A0549	SHEIK RAJEYA
49	18U41A0550	SIRIGIRISETTY YASODHA

CSE-B

S.NO	HT NO	NAME
1	18U41A0551	SUNDARAPU SAI DEEPTHI
2	18U41A0552	PEDAPUDI SIRISHA
3	18U41A0553	BEELA DHARANI KUMAR
4	18U41A0554	TIRUNAGARI MANOJ SWAMY
5	18U41A0555	VADREVU SREE KRISHNA GAYITHRI
6	18U41A0557	YALLAPU NIRISHA DEVI
7	18U41A0558	YEDURADA JASWANTH KUMAR
8	18U41A0559	YEMISETTY ANANDA RAJU
9	18U41A0560	YENNINTI ESWARA ABHISHEK ARAVIND
10	18U41A0561	YERAMAL BHAGYA SRI
11	18U41A0562	YERAMAL VIJAY DURGA PRASAD
12	18U41A0565	KARANAM CHANDRA SEKHAR
13	18U41A0566	VINNAKOTA VENKATA LALITHA SAI SRILAKSHMI
14	18U41A0567	VUDI RAJESH KUMAR
15	18U41A0568	PULAKANTA VARDHINI
16	18U41A0569	THUMMAPALA CHANDU KUMAR
17	18U41A0570	KOTHAPALLI DEVIKA
18	18U41A0571	NANDAVARAPU ANURADHA
19	18U41A0572	YELLAPU VAMSI
20	18U41A0573	KOTNI SWATHI
21	18U41A0574	MANCHALA SAI SAHITHI
22	18U41A0575	NAGIREDDY KURMA VIJAYA LAKSHMI
23	18U41A0576	GAVARA SAI SUMANTH
24	18U41A0577	BANDARU SAI LIKITHA
25	18U41A0578	ANDHAVARAPU RANJITH
26	18U41A0579	NANDAVARAPU LOVA
27	18U41A0580	MARISETTY VAISHNAVI
28	18U41A0581	RAMADUGU SAI TEJA
29	18U41A0582	KOMATI SRISAHITHI
30	18U41A0583	ORUPULA SAI SUMANTH
31	18U41A0584	GUNTURU RAJA RAMA HARSHITA
32	18U41A0585	MANTHINA GOUTHAM KRISHNA
33	18U41A0586	SAHUKARI NIMISHA
34	18U41A0587	KARRI SRINIVAS
35	18U41A0588	KARANAM TRIVENI
36	17U41A0545	NAGIREDLA TEJASWI
37	19U45A0501	AKKIREDDY MOUNIKA
38	19U45A0502	ANIMIREDDY NEELAVENI
39	19U45A0503	MADDALA RANJIT KUMAR
40	19U45A0504	SURISETTI VINEERTHA LAKSHMI PRASANNA

41	19U45A0505	TERAPALLI SUVARNA
42	19U45A0506	THOTA SANDEEP
43	19U45A0507	ULABALA ANITHA

8. Class Time Table and Individual Time Table

TIME TABLE.xlsx

Diet

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY
Department of COMPUTER SCIENCE AND ENGINEERING

Programme: B. Tech-CSE　　Sem: III-II　　Sec: A　　Academic Year: 2020-2021

w.e.f.-　　30/03/2021　　LH- 21　　Class Teacher-Mrs. G. SUJATHA　Strength - 49

Day/Timings	9.00AM-9.50AM	9.50AM-10.40AM	11.00AM-11.50AM	11.50AM-12.40PM		1.30PM-2.20PM	2.20PM-3.10PM	3.10PM-4.00PM
MON	DWDM	STM	CS	CN	LUNCH BREAK	STM LAB (LAB-7)		
TUE	CS	CN	DAA	CN		DWDM	STM	CS
WED	STM	CN	TS	CS		CN LAB (LAB-7)		
THRU	CN	DWDM	DAA	CS		DWDM	DAA	SPORTS
FRI	CS	STM	DWDM	STM		DAA	DAA	LIBRARY
SAT	CN	DWDM LAB (LAB-3)				DWDM	STM	DAA

S. No	Course. Code	Course Name	FACULTY NAME	No. of Periods
1	CN	COMPUTER NETWORKS	Mrs. G. Sujatha	6
2	DWDM	DATA WAREHOUSING AND MINING	Mrs. T.Sujatha	6
3	DAA	DESIGN AND ANALYSIS OF ALGORITHMS	Mrs. V. Manasa	6
4	STM	SOFTWARE TESTING METHODOLOGIES	Mrs. K. Komali	6
5	CS	CYBER SECURITY	Mr. Y. Dinesh Kumar	6
6	CN LAB	NETWORK PROGRAMMING LAB	Mrs. G. Sujatha	3
7	STM LAB	SOFTWARE TESTING LAB	Mrs. K. Komali	3
8	DWDM LAB	DATA WAREHOUSING AND MINING LAB	Mrs. T.Sujatha	3
9	TS	TECHNICAL SKILLS	Faculty-X	1

TOTAL - 42 HOURS

Total theory hours: 30　　Total Lab hours: 9　　TS: 01　　Sports: 01　　Library: 01

(Mrs.K.Komali)　　(Dr.L.Prasanna Kumar)　　(Dr.CH.Narasimham)

Time Table In-Charge　　Head of the Department　　Principal

9. Tutorial Questions (Unit wise)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAM **:** B.Tech CSE
CLASS AND SEMESTER **:** III B.Tech., II-Sem., CSE, Section-A&B
ACADEMIC YEAR **:** 2020-2021
COURSE NAME & CODE **:** Software Testing Methodlogies
COURSE INSTRUCTOR **: Mrs.A. Kamala Priya**

Date:

TUTORIAL –1
UNIT-1

1) How to go about selecting paths for testing? Explain with an example.
2) What is control flow graph? Explain how to generate control flow graph with an example.

UNIT-2

1) What is data flow model? Explain the various components of data flow model.

2)What is meant by transaction flow testing? Explain it with an example.

UNIT-3

1) Explain with example node-by-node removal algorithm.
2) Explain various properties related to Ugly-domains

10. Assignment Questions (Unit wise)

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NH–16, Anakapalle, Visakhapatnam–531002, Andhra Pradesh

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAM **:** B.Tech CSE
CLASS AND SEMESTER **:** III B.Tech., II-Sem.,CSE, Section-A&B
ACADEMIC YEAR **:** 2020-2021
COURSE NAME & CODE **:** Software Testing Methodlogies
COURSE INSTRUCTOR **:** Mrs.A. Kamala Priya

Date:

ASSIGNMENT 1
UNIT -1
1. What is control flow graph? Explain how to generate control flow graph with an example.
2. Explain different types of testing and when they need to be carried out.
3. Explain the model of testing with neat sketch.

UNIT -2
1. What is data flow model? Explain the various components of data flow model.
2. Write about static versus dynamic anomaly detection.
3. What is meant by transaction flow testing? Explain it with an example

UNIT -3
1. Explain the important properties of boundaries. How they will be used in identifying test cases
2. Explain with example node-by-node removal algorithm.
3. Explain various properties related to Ugly-domains

UNIT -4
1. Explain KV charts for the function of two variables. How it will be used in logic reduction.
2. How to perform syntax testing using the black-box method? Explain.
3. Represent the path expression: ab(cde)*(f+kba)*(a+acd)*(g+c)* using graph.

UNIT-5
1. Write short notes on: (i) Transition Bugs (ii) Dead States
2. Discuss node reduction algorithm with suitable example.
3. What are the software implementation issues in state testing? Explain how to handle them.

UNIT-6
1. Explain the different windows that are available in WinRunner and their usage in testing applications.
2. What is checkpoint? Describe the role of checkpoints in testing.
3. Explain different menus and toolbars that exist within WinRunner and the functionality that these items provide.

11. Quiz Questions/Objective type Questions (Unit wise)

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NH–16, Anakapalle, Visakhapatnam–531002, Andhra Pradesh

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAM   **:** B.Tech ECE
CLASS AND SEMESTER   **:** III B.Tech., II-Sem., CSE, Section-A&B
ACADEMIC YEAR   **:** 2020-2021
COURSE NAME & CODE   **:** Software Testing Methodlogies
COURSE INSTRUCTOR   **:** Mrs.A Kamala Priya

Date:

Quiz Questions/Objective type Questions
Unit 1

1.The effectiveness of path testing decreases when _
a) size of software decreases **b) size of software increases** c) both a&b d)none

2.   is sequence of program statements uninterrupted by decisions or junctions
a)process block b)junction block   d)decision block d)case statements

3. . is a graphical representation of program"s control structure
a)control flow chart b)flow chart **c)control flow graphs** d)none

4. more than one arrow leaving a circle is called _
 a)junction **b)decision**   c)process   d)all the above

 5. more than one incoming arrow to a circle is called
  a)junction b)decision   c)process   d)all the above

6. length of a path is measured by
  a)number of statements **b) number of links** c) number of instructions d)none

7. executing all statements of a program under some test is called
   a)path testing   b)branch testing c)**statement testing** d)all the above

8. if every routine has single entry and single exit then it is
    a)path   b)**process** c)predicate d)none

9. A predicate associated with a path is called
   a)multiway branch b)**path predicate** c)predicate interpretation d)none

10. blindness occurs when buggy predicate appears to work correctly
  a)assignment blindness b)equality blindness c)self blindness d)none

11. blindness occurs when path selected by previous predicate works both for buggy and correct predicate
   a)assignment blindness **b)equality blindness** c)self blindness d)none

12. blindness occurs when buggy predicate is a multiple of correct predicate
   a)assignment blindness b)equality blindness c)**self blindness** d)none

13. the act of finding solutions to path predicate is called as
   a)path interpretation b)path instrumentation c)**path sensitization** d)none

14. is used to confirm the outcome achieved by intended path
 a)path interpretation b)**path instrumentation** c)path sensitization d)none

15. line marker is one form of
   a)Instrumentation method b) sensitization method c)a&b d)

unit-2
1. _____a unit of work done completely is called
 a)process b)**transaction** c)birth d)merger

2. transactions flow graphs is to create a _____ model of a program
  a)structural b)functional c)**behavioral** d)none

3. A transaction consists of sequence of operations which are performed by ____
  a)device   b)system c)person   **d)all the above**

4. creation of new transactions is called
  a)**birth** b)death c)task d)none

5. parent retains its transaction/identity which is called as
  a)**Biosis** b)Mitosis c)decision d)none

6. predator transaction consumes a prey this is called as
   a)junction b)**absorption** c)conjugation d)mergers

7. Transaction flow testing is the corner stone of _____ testing
  a)system b)**system functional** c)system structural d)none

8. Two parent transactions merge to form a new daughter transaction is called ?
  a)absorption b)**conjugation** c)mergers d)decision

9. Which transaction technique try to find strangest path from entry to exit in transaction flows?
   a)Path Instrumentation b) Path sensitization c)**Path Selection** d)all the above

10. Which transaction technique plays bigger role in transaction flow testing?
  a)**Path Instrumentation** b) Path sensitization c)Path Selection d)Walkthroughs
11. An anomaly is denoted by a _____sequence of actions.
  a)**two-character** b)one-character c)both a&b d)none
12. analysis is done on source code without execution
  a)dynamic analysis b)**static analysis** c)unforgiving data d)forgiving data
13.data objects can be _____
  a)created b)killed c)used   **d)all above**

14. analysis is done on the fly during execution
  a)**dynamic analysis** b)static analysis c)unforgiving data d)forgiving data
15. once a variable becomes anomalous it can never retutn to a state of grace is called
_____
  a)**unforgiving data** b)forgiving data c)both a&b   d)none

16._____ is a path segment for which every node is visited at most once
  a)simple b)**loop-free** c)du   d)definition-clear
17._____is a path segment for which every node is visited twice
  a)**simple** b)loop-free c)du   d)definition-clear
18. ku represents _____
  a)object exist   b)**object doesnot exist** c)killed   d)none

19. _____is the strongest data flow testing strategy
  a)APU+C b)AU c)AD   d)**ADUP**

20. _____is part of program
  a)**slice**   b)dice   c)dynamic slice d)none
unit-3
21. is part of slice
  a)slice   b)**dice**   c)dynamic slice   d)none
22._____ is refinement of static slicing.
  a)dynamic dice   **b)dynamic slice** c)both a&b d)none
23.which of the following nodes are dummy nodes_____
  a)END b)RETURN c)BEGIN   **d)ALL THE ABOVE**
24.Redemption from the anomalous state is possible in _____
  a)**forgiving data** b)unforgiving data   c)static anomaly   d)dynamic anomaly
25.An object is killed and then redefined is _____
  a)probably bug **b)normal situation** c)a bug d)all the above
        1. set of possible values is called _____
        a)**domain** b)path c)subroutine d)none

        2. union of specified domains is incomplete, it means domain is
        a)contradictory b)**ambiguous** c)over specified   d)faulty logic

        3. domain testing is example of
        a)coincidental correctness b)closure reversal **c)partition testing** d)none

4. implemented domains cant be _____
a)incomplete b)inconsistent **c)both a & b** d)none

5. all points with in arbitrary distance is called
a)boundary point b)extreme point **c)interior point** d)all the above

6. is a point that does not lie between any two other arbitrary points
a)boundary point **b)extreme point** c)interior point d)all the above

7. COOOOI stands for
a)**closed off outside open off inside** b)concave off outside open off inside
c) closed open outside open off inside   d) closed off outside off open inside

8. _____boundaries can causes a bug like an incorrect constant in a predicate.
a)**shifted** b)tilted c)extra d)missing

9. _____boundary occurs when coefficients in boundary are wrong
a)shifted b)**tilted** c)extra d)missing

10.   In domain testing we focus on classification aspect of _____
a)domain **b)routine** c)calculations d)none

11. Compound predicates are subjected to _____ transformation
a)faulty-logic b)closure reversal c)over specified d)boundary errors

12. linear boundary are found in ___
a)**nice domains** b)ugly domains c)both a&b d)none

13. Two and three variables represents _____ domains?
a)open,closed b)**planar,solid** c)solid,planar d)none

14. The set of output values produced by a function is called_____
a)domain b)span **c)range** d)none

15.interface between any two components is considered as a _____
    a)subroutine call b)sequence call c)component call d)none

UNIT-4
1.The effectiveness of path testing decreases when _
a) size of software decreases **b) size of software increases** c) both a&b d)none

2. is sequence of program statements uninterrupted by decisions or junctions
a)process block b)junction block d)decision block d)case statements

3. . is a graphical representation of program's control structure
a)control flow chart b)flow chart **c)control flow graphs** d)none

4. more than one arrow leaving a circle is called _
 a)junction **b)decision** c)process   d)all the above

 5. more than one incoming arrow to a circle is called
  a)junction b)decision   c)process   d)all the above

6. length of a path is measured by
   a)number of statements **b) number of links** c) number of instructions d)none

7. executing all statements of a program under some test is called
    a)path testing b)branch testing c)**statement testing** d)all the above

8. if every routine has single entry and single exit then it is
    a)path   b)**process** c)predicate d)none

9. A predicate associated with a path is called
    a)multiway branch b)**path predicate** c)predicate interpretation d)none

 10.   blindness occurs when buggy predicate appears to work correctly
    a)assignment blindness b)equality blindness c)self blindness d)none

11.   blindness occurs when path selected by previous predicate works both for buggy and correct predicate
    a)assignment blindness **b)equality blindness** c)self blindness d)none

 12.   blindness occurs when buggy predicate is a multiple of correct predicate
    a)assignment blindness b)equality blindness c)**self blindness** d)none

 13. the act of finding solutions to path predicate is called as
   a)path interpretation b)path instrumentation c)**path sensitization** d)none

14.   is used to confirm the outcome achieved by intended path
 a)path interpretation b)**path instrumentation** c)path sensitization d)none

15. line marker is one form of
   a)Instrumentation method b) sensitization method c)a&b d)none

13. the act of finding solutions to path predicate is called as
   a)path interpretation b)path instrumentation c)**path sensitization** d)none

14. is used to confirm the outcome achieved by intended path
   a)path interpretation b)**path instrumentation** c)path sensitization d)none

15. line marker is one form of
   a)Instrumentation method b) sensitization method c)a&b d)

UNIT-6
1. Set of possible values is called _____   ( )

   a)domain b)path c)subroutine d)none

2. union of specified domains is incomplete, it means domain is   ( )

   a).contradictory b)ambiguous c)over specified d)faulty logic

3. domain testing is example of   ( )

   a)coincidental correctness b)closure reversal c)partition testing d)none

4. implemented domains cant be _____   ( )

   a).incomplete b)inconsistent c)both a & b   d)none

5. all points with in arbitrary distance is called   ( )

a)boundary point   b)extreme point   c)interior point   d)all the above

6. is a point that does not lie between any two other arbitrary points   ( )

a)boundary point   b)extreme point   c)interior point   d)all of the above

7. COOOOI stands for   ( )

a)closed off outside open off inside   b)concave off outside open off inside

c) closed open outside open off inside d) closed off outside off open inside

8. _____boundaries can causes a bug like an incorrect constant in a predicate   (   )

a)shifted b)tilted c)extra d)missing

9. _____boundary occurs when coefficients in boundary are wrong   (   )

a)shifted   b)tilted c)extra d)missing

10. In domain testing we focus on classification   aspect of _____   (   )

a)domain b)routine c)calculations d)none

11._____is a software testing technique that performs using special automated
testing software   (   )

tools to execute a test case suite.

a)Automation testing   b) Manual tesing   c) Test Automation   d) A & B

12. Test Tool selection largely depends on the _____ the Application Under Test is built on. (   )

 a. technology   b. software   c, both a & b d.none

13. automated scripts are executed during which phase?
              (   )

 a) Test Tool Selection   b) Define scope of Automation

 c) Planning, Design and Development   d) Test Execution

14. which testing tool is developed by Mercury Interactive?
        (   )

  A) winrunner b)load runner c)JMeter d)none

15._____ is a software testing tool from Micro Focus
        (   )

A) winrunner b)load runner c)JMeter d)none

16. _____ used for testing Web Application or FTP application
        (   )

A) winrunner b)load runner c)JMeter d)none

17. The matrix in which every node of a graph is represented by one row and one column is called as a? (   )

a.control flow graph b)matrix representation c)graph matrix d)none

18. The connection matrix is obtained by replacing each entry with _____ if there is a link?   (   )

a.1   b.0   c.X   d.none

19. which can be automatically translated into code?
        (   )

a.logic tables   b. Decision tables c.immaterial cases   d. all of the above

20. _____ Identify the target language or format?
        (   )

a.logic based testing   b.syntax testing   c.decision table testing   d.domain testing

12. **Question Bank (Descriptive Questions with BLOOMS Taxonomy)**

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NH–16, Anakapalle, Visakhapatnam–531002, Andhra Pradesh

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

PROGRAM   : B.Tech ECE
CLASS AND SEMESTER   : III B.Tech., II-Sem., CSE, Section-A&B
ACADEMIC YEAR   : 2020-2021
COURSE NAME & CODE : Siftware Testing Methodlogies
COURSE INSTRUCTOR   : Mrs.A Kamala Priya

Question Number	Question	Blooms Taxonomy Level	Related Course Outcome CO	Marks
1	List out various types of Bugs possible in executing a program and discuss their remedies. . .	Understand (L2)	CO1	10
2	Describe the role of control flow graph in testing a software	Understand (L2)	CO2	10
3	Explain the terms slicing, dicing, data flow and debugging with reference to testing	Analyze (L4)	CO4	10
4	e KV chart to minimize F= B'C'D'+A'B'C'D+ABC'D+A'BCD+ABD+B'CD'+A'BC'D'	Evaluating (L5)	CO4	10
5	Explain with example node-by-node removal algorithm.	Understand (L2)		
6	Explain SPAN compatibility with an example	Analyze (L4)		
7	Explain about good state and bad state graphs. How to handle bad state graphs.	Understand (L2)		
8.	How can a relation be represented and what are the properties of relations?			
9.	Explain the steps involved in automated testing process			
10.	Explain the process to be followed when doing testing using WinRunner			

11.	How to formulate and execute test scripts in load runner? Explain	Understand (L2)		
12.	. Explain the features of test automation. Give its merits and demerits over manual testing	Understand (L2)		
13.	Explain the features of Jmeter Testing environment	Understand (L2)		
14.	How to record test and set check points in win runner? Explain	Understand (L2)		

CO : Course Outcomes Blooms Taxonomy Levels
L1: Remembering
L2 : Understanding
L3 : Applying
L4 : Analysing
L5 : Evaluating
L6 : Creating

13. Previous University Question papers (Minimum Five)

Note: 1. Question Paper consists of two parts (Part-A and Part-B)
2. Answer ALL the question in Part-A
3. Answer any FOUR Questions from Part-B

~~~~~~

PART –A

1. a) What are integration bugs?   [2M]
   b) What is meant by a program slice?   [2M]
   c) What is Floating-Point Zero Check?   [2M]
   d) Write short notes on delimiter errors.   [3M]
   e) What is dead state?   [3M]
   f) Write the benefits of automated testing.   [2M]

PART -B

2. a) What is control flow graph? Explain how to generate control flow graph with an   [7M]
      example.
   b) Explain different types of testing and when they need to be carried out. [7M]

3. a) What is data flow model? Explain the various components of data flow model. [7M]
   b) Write about static versus dynamic anomaly detection.   [7M]

4. a) Write the role of path expression and path predicates in testing.   [7M]
   b) State and explain various restrictions at domain testing processes.   [7M]

5. a) Minimize the following function using KV charts: [7M]
      $F(A,B,C,D) = P(1,2,3,8,9,10,11,14) + Pd(7,15)$
   b) Write about Test Case Design process.   [7M]

6. a) What are the principles of state testing? Discuss advantages and disadvantages. [7M]
   b) What are the matrix operations used in tool building? Give their significance. [7M]

7. a) Explain the different windows that are available in WinRunner and their usage in [7M]
      testing applications.
   b) What is checkpoint? Describe the role of checkpoints in testing.   [7M]

*****

Code No: R1632054   **R16**   **SET - 1**

III B. Tech II Semester Regular Examinations, April/May- 2019
SOFTWARE TESTING METHODOLOGIES
(Common to Computer Science and Engineering, Information Technology)

Time: 3 hours   Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A and Part-B**)
       2. Answer ALL the question in **Part-A**
       3. Answer any FOUR Questions from **Part-B**

PART –A

1.	a)	What are integration bugs?	[2M]
	b)	What is meant by a program slice?	[2M]
	c)	What is Floating-Point Zero Check?	[2M]
	d)	Write short notes on delimiter errors.	[3M]
	e)	What is dead state?	[3M]
	f)	Write the benefits of automated testing.	[2M]

PART -B

2.	a)	What is control flow graph? Explain how to generate control flow graph with an example.	[7M]
	b)	Explain different types of testing and when they need to be carried out.	[7M]
3.	a)	What is data flow model? Explain the various components of data flow model.	[7M]
	b)	Write about static versus dynamic anomaly detection.	[7M]
4.	a)	Write the role of path expression and path predicates in testing.	[7M]
	b)	State and explain various restrictions at domain testing processes.	[7M]
5.	a)	Minimize the following function using KV charts: $F(A,B,C,D) = P(1,2,3,8,9,10,11,14) + Pd(7,15)$	[7M]
	b)	Write about Test Case Design process.	[7M]
6.	a)	What are the principles of state testing? Discuss advantages and disadvantages.	[7M]
	b)	What are the matrix operations used in tool building? Give their significance.	[7M]
7.	a)	Explain the different windows that are available in WinRunner and their usage in testing applications.	[7M]
	b)	What is checkpoint? Describe the role of checkpoints in testing.	[7M]

*****

Code No: R1632054   **R16**   SET - 1

III B. Tech II Semester Regular Examinations, April/May- 2019
SOFTWARE TESTING METHODOLOGIES
(Common to Computer Science and Engineering, Information Technology)

Time: 3 hours   Max. Marks: 70

Note: 1. Question Paper consists of two parts (Part-A and Part-B)
2. Answer ALL the question in Part-A
3. Answer any FOUR Questions from Part-B

~~~~~~

PART –A

1. a) What are integration bugs?   [2M]
    b) What is meant by a program slice?   [2M]
    c) What is Floating-Point Zero Check?   [2M]
    d) Write short notes on delimiter errors.   [3M]
    e) What is dead state?   [3M]
    f) Write the benefits of automated testing.   [2M]

PART -B

2. a) What is control flow graph? Explain how to generate control flow graph with an   [7M]
        example.
    b) Explain different types of testing and when they need to be carried out.   [7M]

3. a) What is data flow model? Explain the various components of data flow model.   [7M]
    b) Write about static versus dynamic anomaly detection.   [7M]

4. a) Write the role of path expression and path predicates in testing.   [7M]
    b) State and explain various restrictions at domain testing processes.   [7M]

5. a) Minimize the following function using KV charts: [7M]
        F(A,B,C,D) = P(1,2,3,8,9,10,11,14) + Pd(7,15)
    b) Write about Test Case Design process.   [7M]

6. a) What are the principles of state testing? Discuss advantages and disadvantages.   [7M]
    b) What are the matrix operations used in tool building? Give their significance.   [7M]

7. a) Explain the different windows that are available in WinRunner and their usage in   [7M]
        testing applications.
    b) What is checkpoint? Describe the role of checkpoints in testing.   [7M]

*****

Code No: R1632054

(R16)

SET - 1

III B. Tech II Semester Regular Examinations, April/May- 2019
SOFTWARE TESTING METHODOLOGIES
(Common to Computer Science and Engineering, Information Technology)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A and Part-B**)
   2. Answer ALL the question in **Part-A**
   3. Answer any FOUR Questions from **Part-B**

~~~~~~

PART –A

1.	a)	What are integration bugs?	[2M]
	b)	What is meant by a program slice?	[2M]
	c)	What is Floating-Point Zero Check?	[2M]
	d)	Write short notes on delimiter errors.	[3M]
	e)	What is dead state?	[3M]
	f)	Write the benefits of automated testing.	[2M]

PART -B

2.	a)	What is control flow graph? Explain how to generate control flow graph with an example.	[7M]
	b)	Explain different types of testing and when they need to be carried out.	[7M]
3.	a)	What is data flow model? Explain the various components of data flow model.	[7M]
	b)	Write about static versus dynamic anomaly detection.	[7M]
4.	a)	Write the role of path expression and path predicates in testing.	[7M]
	b)	State and explain various restrictions at domain testing processes.	[7M]
5.	a)	Minimize the following function using KV charts: $F(A,B,C,D) = P(1,2,3,8,9,10,11,14) + Pd(7,15)$	[7M]
	b)	Write about Test Case Design process.	[7M]
6.	a)	What are the principles of state testing? Discuss advantages and disadvantages.	[7M]
	b)	What are the matrix operations used in tool building? Give their significance.	[7M]
7.	a)	Explain the different windows that are available in WinRunner and their usage in testing applications.	[7M]
	b)	What is checkpoint? Describe the role of checkpoints in testing.	[7M]

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III B. Tech II Semester Supplementary Examinations, November -2019
SOFTWARE TESTING METHODOLOGIES
(**Common to** Computer Science and Engineering, Information Technology)

Time: 3 hours   Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**
~~~~ ~~~~~~~~~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~ ~~~~~~~~~~ ~~~~~

<div align="center">PART –A</div>   **(14 Marks)**

1.	a)	Differentiate Beta testing from Alpha testing.	[2M]
	b)	Define Slicing.	[2M]
	c)	Compare open and closed domains.	[2M]
	d)	What is the possibility of getting unreachable states?	[3M]
	e)	What is the role of predicate in path expression?	[3M]
	f)	At what level non functional requirement testing is performed?	[2M]

<div align="center">PART –B</div>   **(56 Marks)**

2.	a)	List out various types of Bugs possible in executing a program and discuss their remedies.	[7M]
	b)	Describe the role of control flow graph in testing a software.	[7M]
3.	a)	Write about the components of transaction flow testing.	[7M]
	b)	What are the differences between static and dynamic anomaly detection? Explain.	[7M]
4.	a)	Relate Bug assumption with domain testing.	[7M]
	b)	Discuss the importance of regular expression in software testing.	[7M]
5.	a)	Represent the path expression: ab(cde)*(f+kba)*(a+acd)*(g+c)* using graph.	[7M]
	b)	How decision tables will be helpful in logic based testing gives various components of it? Explain.	[7M]
6.	a)	Demonstrate cyclomatic complexity with an example.	[7M]
	b)	How to identify good and bad state graphs? Explain.	[7M]
7.	a)	Explain the features of test automation. Give its merits and demerits over manual testing.	[7M]
	b)	How to record test and set check points in win runner? Explain.	[7M]

<div align="center">*****</div>

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III B. Tech II Semester Regular/Supplementary Examinations, October/November - 2020
SOFTWARE TESTING METHODOLOGIES
(Common to Computer Science and Engineering, Information Technology)

Time: 3 hours   Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
     2. Answer **ALL** the question in **Part-A**
     3. Answer any **FOUR** Questions from **Part-B**

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	PART –A	**(14 Marks)**
1. a)	What is the focus of acceptance testing?	[2M]
b)	Represent absorption and conjugation in transaction flow testing.	[2M]
c)	List out the restrictions to domain testing.	[2M]
d)	How to represent a graph with a matrix?	[3M]
e)	Define syntax-based testing.	[3M]
f)	What is the popular integration approach? Give the reason.	[2M]

	PART –B	**(56 Marks)**
2. a)	Define Bug. Discuss the consequences of bugs.	[7M]
b)	Explain path selection and path testing criteria. How they affect testing?	[7M]
3. a)	Describe the components of the data flow model.	[7M]
b)	Discuss the complexity of transaction flow representation.	[7M]
4. a)	Compare and contrast nice and ugly domains.	[7M]
b)	Explain SPAN compatibility with an example.	[7M]
5. a)	Explain KV charts for the function of two variables. How it will be used in logic reduction.	[7M]
b)	How to perform syntax testing using the black-box method? Explain.	[7M]
6. a)	Explain the partition algorithm for software testing.	[7M]
b)	How to identify equivalent states and how to merge them in representing state graphs? Explain.	[7M]
7. a)	Compare the features of various dynamic software testing tools.	[7M]
b)	How to formulate and execute test scripts in load runner? Explain.	[7M]

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14.GATE Questions (Unit wise) - NA

DADI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTUK, Kakinada)

NAAC Accredited Institute

An ISO 9001:2008, 14001:2004 & OHSAS 18001:2007 Certified Institute

NH–16, Anakapalle, Visakhapatnam–531002, Andhra Pradesh

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAM   : B.Tech CSE

CLASS AND SEMESTER   : III B.Tech., II-Sem., CSE, Section-A&B

ACADEMIC YEAR   : 2020-2021

COURSE NAME & CODE   : **Software Testing Methodlogies**

COURSE INSTRUCTOR   : **Mrs.A Kamala Priya**

16A. Internal (Mid) Examinations Question Papers

16B. First Mid Internal Marks of respective Subject, Mid Marks Analysis and Action Taken Report

16C. Second Mid Internal Marks of respective Subject, Mid Marks Analysis and Action Taken Report

MID-1
QUESTION PAPER

SET A

CO	Level	Q.No	Questions	Max Marks
1	L1	1	What is control flow graph? Explain how to generate control flow graph with an example	10 M
1	L2	2	Explain in detail the transaction flow testing techniques and Complications.	10M
1	L1	3	xplain with example node-by-node removal algorithm.	10M

MARKS:

HT NO	STM		
	Q1	Q2	Q3
18U41A0501			
18U41A0502	14	9	5
18U41A0503	12	10	5
18U41A0504	11	10	5
18U41A0505	13	10	5
18U41A0506	12	10	5
18U41A0507	14	10	5
18U41A0508	13	10	5
18U41A0509	11	10	5
18U41A0510	12	10	5
18U41A0511	14	10	5
18U41A0512	13	10	5
18U41A0513	15	10	5
18U41A0514	14	10	5
18U41A0515	11	10	5
18U41A0516	12	10	5
18U41A0517	14	10	5
18U41A0518	12	10	5
18U41A0519	11	ab	5
18U41A0520	13	10	5
18U41A0521	12	10	5
18U41A0522	14	10	5
18U41A0523	13	9	5
18U41A0524	11	10	5
18U41A0525	12	10	5
18U41A0526	14	10	5
18U41A0527	13	10	5
18U41A0528	15	10	5
18U41A0529	14	10	5
18U41A0530	11	10	5
18U41A0531	12	10	5
18U41A0532	14	10	5
18U41A0533	12	10	5
18U41A0534	11	10	5
18U41A0535	13	10	5
18U41A0536	12	10	5
18U41A0537	14	10	5
18U41A0538	13	10	5
18U41A0539	11	10	5
18U41A0540	12	10	5
18U41A0541	14	10	5
18U41A0543	13	10	5
18U41A0544	15	10	5
18U41A0545	14	10	5
18U41A0546	11	10	5
18U41A0547	12	10	5
18U41A0548	14	10	5
18U41A0549	12	10	5
18U41A0550	13	10	5

HT NO	STM		
18U41A0551	Q1	Q2	Q3
18U41A0552	14	9	5
18U41A0553	12	10	5
18U41A0554	11	10	5
18U41A0555	13	10	5
18U41A0557	12	10	5
18U41A0558	14	10	5
18U41A0559	13	10	5
18U41A0560	11	10	5
18U41A0561	12	10	5
18U41A0562	14	10	5
18U41A0565	13	10	5
18U41A0566	15	10	5
18U41A0567	14	10	5
18U41A0568	11	10	5
18U41A0569	12	10	5
18U41A0570	14	10	5
18U41A0571	12	10	5
18U41A0572	11	ab	5
18U41A0573	13	10	5
18U41A0574	12	10	5
18U41A0575	14	10	5
18U41A0576	13	9	5
18U41A0577	11	10	5
18U41A0578	12	10	5
18U41A0579	14	10	5
18U41A0580	13	10	5
18U41A0581	15	10	5
18U41A0582	14	10	5
18U41A0583	11	10	5
18U41A0584	12	10	5
18U41A0585	14	10	5
18U41A0586	12	10	5
18U41A0587	11	10	5
18U41A0588	13	10	5
17U41A0545	12	10	5
19U45A0501	14	10	5
19U45A0502	13	10	5
19U45A0503	11	10	5
19U45A0504	12	10	5
19U45A0505	14	10	5
19U45A0506	13	10	5
19U45A0507	15	10	5

MID-2
QUESTION PAPER

CO	Level	Q.No	Questions	Max Marks
4	L2	1	Represent the path expression: ab(cde)*(f+kba)*(a+acd)*(g+c)* using graph.	10M
5	L1	2	Discuss node reduction algorithm with suitable example	10M
6	L2	3	What is checkpoint? Describe the role of checkpoints in testing.	10M

MARKS:

HT NO	STM		
	Q1	Q2	Q3
18U41A0501			
18U41A0502	14	9	5
18U41A0503	12	10	5
18U41A0504	11	10	5
18U41A0505	13	10	5
18U41A0506	12	10	5
18U41A0507	14	10	5
18U41A0508	13	10	5
18U41A0509	11	10	5
18U41A0510	12	10	5
18U41A0511	14	10	5
18U41A0512	13	10	5
18U41A0513	15	10	5
18U41A0514	14	10	5
18U41A0515	11	10	5
18U41A0516	12	10	5
18U41A0517	14	10	5
18U41A0518	12	10	5
18U41A0519	11	ab	5
18U41A0520	13	10	5
18U41A0521	12	10	5
18U41A0522	14	10	5
18U41A0523	13	9	5
18U41A0524	11	10	5
18U41A0525	12	10	5
18U41A0526	14	10	5
18U41A0527	13	10	5
18U41A0528	15	10	5
18U41A0529	14	10	5
18U41A0530	11	10	5
18U41A0531	12	10	5
18U41A0532	14	10	5

HT NO	Q1	Q2	Q3
18U41A0533	12	10	5
18U41A0534	11	10	5
18U41A0535	13	10	5
18U41A0536	12	10	5
18U41A0537	14	10	5
18U41A0538	13	10	5
18U41A0539	11	10	5
18U41A0540	12	10	5
18U41A0541	14	10	5
18U41A0543	13	10	5
18U41A0544	15	10	5
18U41A0545	14	10	5
18U41A0546	11	10	5
18U41A0547	12	10	5
18U41A0548	14	10	5
18U41A0549	12	10	5
18U41A0550	13	10	5

HT NO	STM		
18U41A0551	Q1	Q2	Q3
18U41A0552	14	9	5
18U41A0553	12	10	5
18U41A0554	11	10	5
18U41A0555	13	10	5
18U41A0557	12	10	5
18U41A0558	14	10	5
18U41A0559	13	10	5
18U41A0560	11	10	5
18U41A0561	12	10	5
18U41A0562	14	10	5
18U41A0565	13	10	5
18U41A0566	15	10	5
18U41A0567	14	10	5
18U41A0568	11	10	5
18U41A0569	12	10	5
18U41A0570	14	10	5
18U41A0571	12	10	5
18U41A0572	11	ab	5
18U41A0573	13	10	5
18U41A0574	12	10	5
18U41A0575	14	10	5
18U41A0576	13	9	5
18U41A0577	11	10	5
18U41A0578	12	10	5
18U41A0579	14	10	5
18U41A0580	13	10	5
18U41A0581	15	10	5
18U41A0582	14	10	5
18U41A0583	11	10	5
18U41A0584	12	10	5
18U41A0585	14	10	5
18U41A0586	12	10	5

Roll No					
18U41A0587		11		10	5
18U41A0588		13		10	5
17U41A0545		12		10	5
19U45A0501		14		10	5
19U45A0502	13			10	5
19U45A0503		11	10	5	
19U45A0504		12		10	5
19U45A0505		14		10	5
19U45A0506		13		10	5
19U45A0507		15		10	5

17. Detailed notes (Unit wise):

➢ Hand written Notes (on A4 Pages) should be prepared for every subject.

➢ Each Unit should consist of minimum Ten Pages. The total Hand written Notes must be around 50 to 60 Pages.

➢ Additional material such as Print outs of PPTs can also be added.

18. Quality measurement Sheets

➢ Teaching evaluation (Feedback received from IQAC)
➢ Academic Audit report received from IQAC

19. Attainment of Cos and Pos (as per the suggestion of NBA Co-Ordinator)
(Detailed Procedure used to calculate the attainment of Cos and POs)
Note: Separate sheets must be attached

20. Closure Report/Course Review (By the concerned Faculty):

At the End of the course the report should be given by the concerned faculty

PART A:
No. of classes planned using Traditional Teaching Learning Methods (TLM 1):
No. of classes planned using LCD Projector (TLM 2):
No. of classes planned to cover Tutorials (TLM3):
No. of classes planned using Modern Teaching Learning Methods (TLM 4 to TLM 8)

     No. of classes planned using TLM 4
     No. of classes planned using TLM 5
     No. of classes planned using TLM 6
     No. of classes planned using TLM 7
     No. of classes planned using TLM 8

No. of classes planned to cover Additional Topics (if any):
Total Number of classes planned -

PART B:
No. of classes taught using Traditional Teaching Learning Methods (TLM 1):
No. of classes taught using LCD Projector (TLM 2):
No. of classes taught to cover Tutorials (TLM 3):
No. of classes taught using Modern Teaching Learning Methods (TLM 4 to TLM 8)

     No. of classes taught using TLM 4
     No. of classes taught using TLM 5
     No. of classes taught using TLM 6
     No. of classes taught using TLM 7
     No. of classes taught using TLM 8

No. of classes taught to cover Additional Topics (if any):
Total Number of classes actually taken –

PART C:
Total Number of students attended for the First Mid exam –
Total Number of students attended for the Second Mid exam
Total Number of students attended for the JNTU External exam -
Total number of students passed the Course -
Pass percentage of the Class -
Total number of students passed the Course in Re Valuation/Recounting-

Course Instructor   **Course Coordinator**   **Module Co-Ordinator**   **Program Co-Ordinator**   **HOD**

Academic Convenor   **Dean IQAC**   **Principal**

REVISED Bloom's Taxonomy Action Verbs

Definitions	I. Remembering	II. Understanding	III. Applying	IV. Analyzing	V. Evaluating	VI. Creating
Bloom's Definition	Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.	Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.	Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.	Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.	Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.
Verbs	• Choose • Define • Find • How • Label • List • Match • Name • Omit • Recall • Relate • Select • Show • Spell • Tell • What • When • Where • Which • Who • Why	• Classify • Compare • Contrast • Demonstrate • Explain • Extend • Illustrate • Infer • Interpret • Outline • Relate • Rephrase • Show • Summarize • Translate	• Apply • Build • Choose • Construct • Develop • Experiment with • Identify • Interview • Make use of • Model • Organize • Plan • Select • Solve • Utilize	• Analyze • Assume • Categorize • Classify • Compare • Conclusion • Contrast • Discover • Dissect • Distinguish • Divide • Examine • Function • Inference • Inspect • List • Motive • Relationships • Simplify • Survey • Take part in • Test for • Theme	• Agree • Appraise • Assess • Award • Choose • Compare • Conclude • Criteria • Criticize • Decide • Deduct • Defend • Determine • Disprove • Estimate • Evaluate • Explain • Importance • Influence • Interpret • Judge • Justify • Mark • Measure • Opinion • Perceive • Prioritize • Prove • Rate • Recommend • Rule on • Select • Support • Value	• Adapt • Build • Change • Choose • Combine • Compile • Compose • Construct • Create • Delete • Design • Develop • Discuss • Elaborate • Estimate • Formulate • Happen • Imagine • Improve • Invent • Make up • Maximize • Minimize • Modify • Original • Originate • Plan • Predict • Propose • Solution • Solve • Suppose • Test • Theory

Anderson, L. W., & Krathwohl, D. R. (2001). A taxonomy for learning, teaching, and assessing, Abridged Edition. Boston, MA: Allyn and Bacon.

SrM
-Assignment 2

A. maudea
19U45A0501

what is control flow graph? explain how to generate

el flow graph with an example?

A data flow graph is a graph consisting of nodes &
cted links. we will use a control graph to show which
ded to data objects of intrest at that moment ou
ctive is to expose deviations b/w data flows have
the data flow we want

L

d

t

$\cos L$

$L::\cos L$

$\sin\sin L$

$NT::\sin t$

$\cos t::\cos t$

$SC::CSL=S$

$TNN::CTL::CS$

$TLF::SNL=TN$

$c::\cos^{-1}C\alpha$

$N::\tan^{-1}TNN$

$2PP::\tan^{-1}TLF$

$SIVC::-\sin C$

$MPD::Mtd$

$TMD::\tan MPD$

$9aD::SINMPD$

$TNF::C\alpha=SMD$

$SMC::SNC=SMD$

$M::\sin^{-1}SMC$
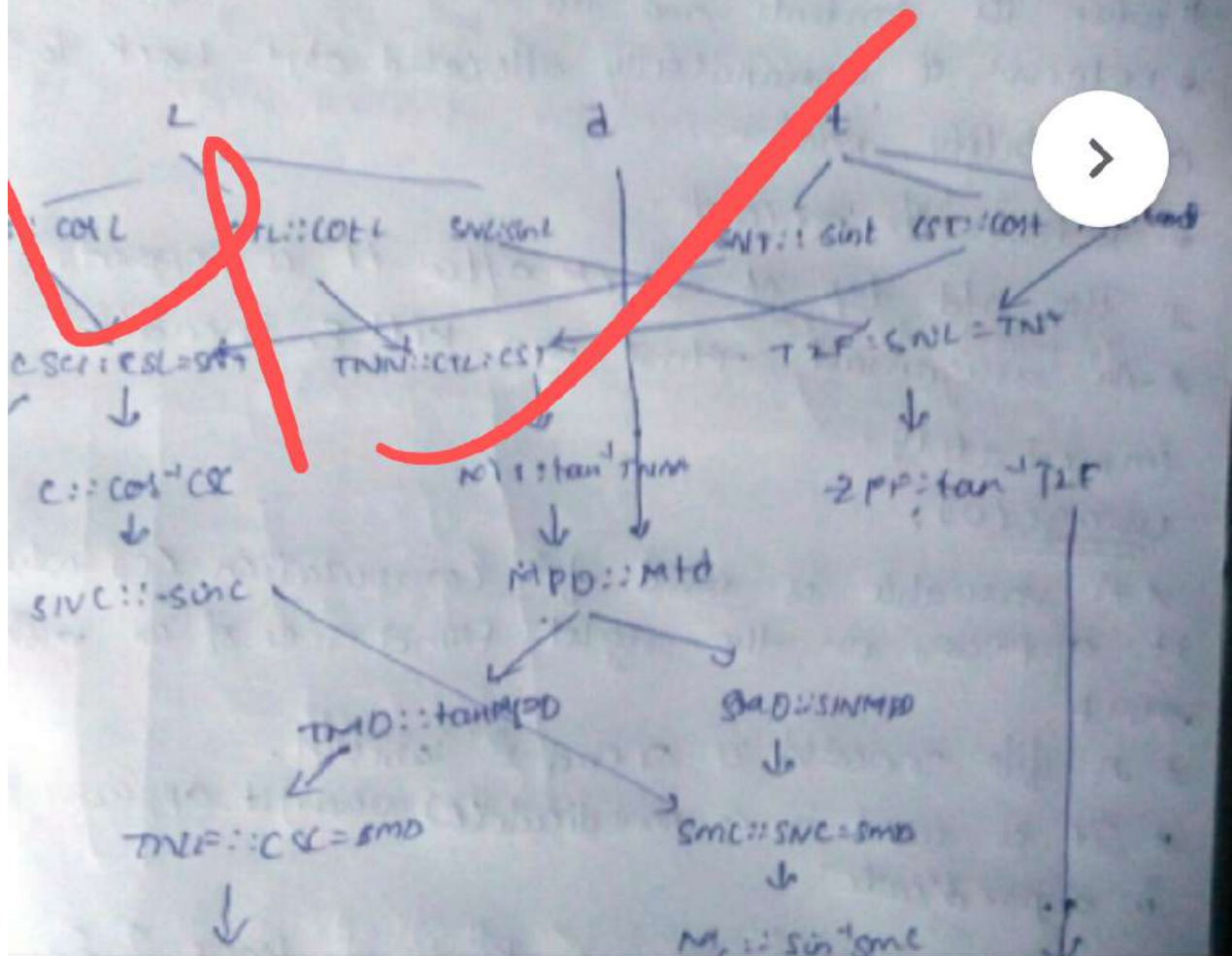
efined (d) ÷ defined, created, initialized etc.
n obj is defined explicitly when it appears in a
claration - & implicitly when it appears on the left
assignment. It is also to be used to mean that
een opened. dynamically allocated on allocated
mething is pushed on the stack & a record writ

illed of undefined (k) ÷
An obj is killer on undefined when it is realu
otherwise made unavailable
when its contents are no longer known with certtu
release of dynamically allocated objs back to the
vai ty pool.
Return of records.
The old top of stack after it is popped.
An assignment stmt can kill & readtive
nmediately.

urage (o):
A variable is used for computation (c) when
appears on the right Hand side of an assignment
mt
A file record is read of written.
It is used in a predicate (p) when it appears direct
a predicate

ncatenated loops:-

concatenated loops fall b/w single & nested
as with respect to task cases. Two loops are
ncatenated if it's possible to reach one after exiting
e other while still on a path from entrance to exit

sible loops:-

A Horsible loops is a combination of nested loops
are of code that jumps into & out of loops
eresting loops, hidden loops, & cross connected loops.

yes for a single loop:-

ingle loop can be covered with 2 cases.
loop
not
y 1: single loop, zero min, N max, No exel
Try bypassing the loop.
could, loop control variable be negative?
One pass through the loop
Two passes through the loop
A typical no. of iterations, unless covered by previous to
one less than the max no. of iterations.
The max no. of iterations.
attempt one more than max iterations.
-2: single loop, no-zero min, No executed values

...me & furthermore to confirm that it...
...ved by the intended path.

...everal marker or link marker,

...imple & effective form of instrumentation is...
...uential marker or link marker, Name every...
...ge case letter.
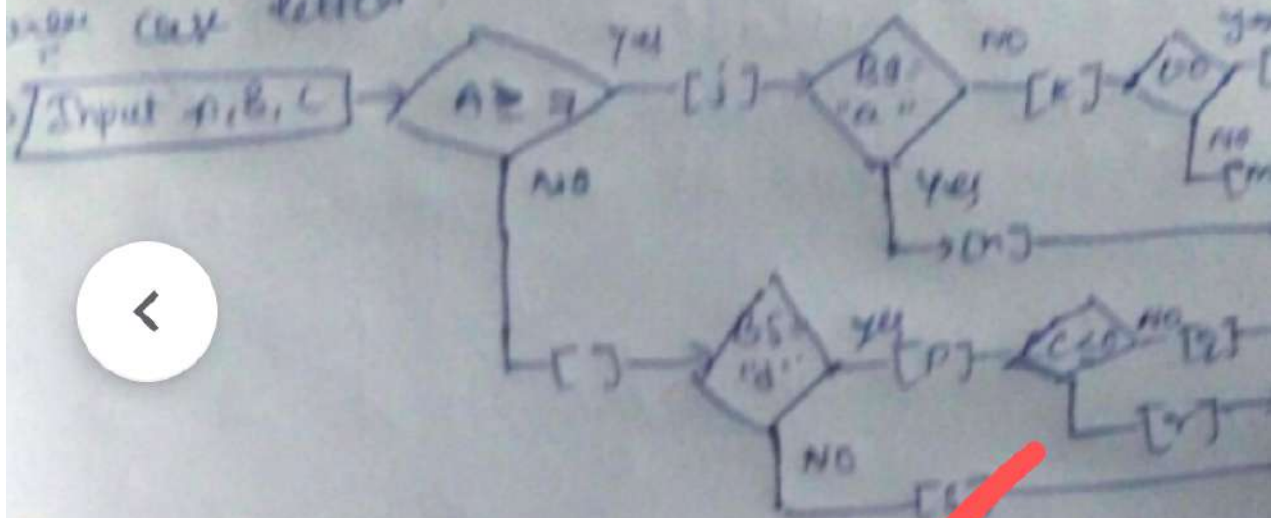
Single link marker instrumentation.

link marker method:

...e problem of single link marker method...
...plement a marker for links one at beginning...
link & on the end...
...is specify the path name...

- Attempt one more than the max no of iterati

E-3: single loops with excluded values

Treat single loops with excluded values as
sets of tests consisting of loops without exclu
ues such as case-1 & case-2 above.

Briefly explain about path instrumentation.

→ path instrumentation is what we have to do
Confirm that the outcome was achieved by the
ide a path.

→ co-incidenta correctness : The coincidenta correction
inds th achieving the desired outcome
ron ues on.

Co incidental correctness
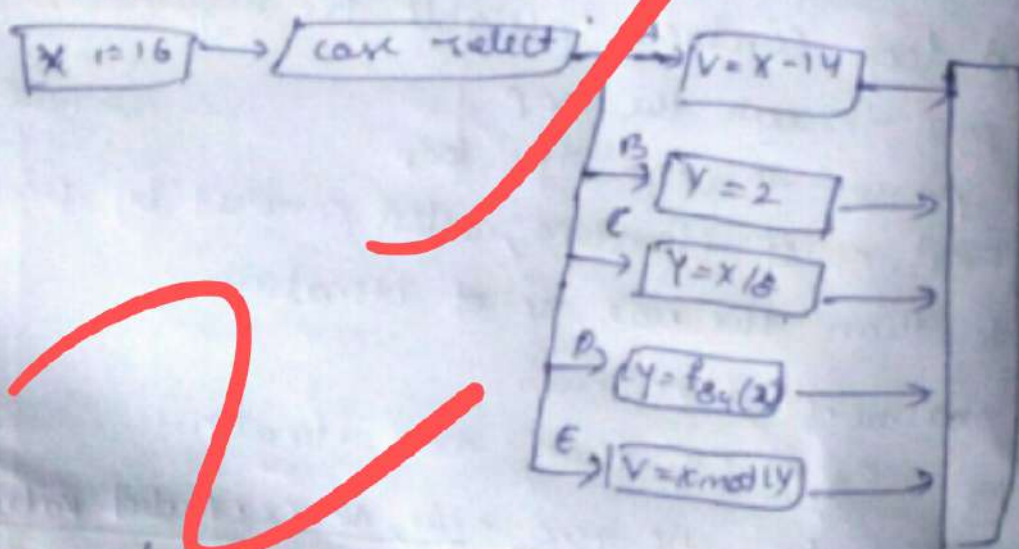
per of instrumentation methods include :

DADI INSTITUTE OF ENGINEERING AND TECHNOLOGY

ACADEMIC YEAR 2020-2021   SUBJECT: SOFTWARE TESTING METHODOLOGY

COURSE INSTRUCTOR : A.KAMALA PRIYA

S.L NO	TOOL	TEST-1			TEST-2		
	CO	1	2	3	1	2	3
	QUESTION NO	1	2	3	1	2	3
	MAXIMUM MARKS	10	10	10	10	10	10
	ROLL NO						
1	18U41A0501	5	6	5	5	5	6
2	18U41A0502	9	7	7	7	8	9
3	18U41A0503	8	9	7	8	7	9
4	18U41A0504	8	7	7	8	6	8
5	18U41A0505	10	8	8	8	9	9
6	18U41A0506	6	8	8	6	8	8
7	18U41A0507	6	5	5	5	6	5
8	18U41A0508	10	10	10	10	10	10
9	18U41A0509	10	8	8	10	9	7
10	18U41A0510	9	7	10	9	8	9
11	18U41A0511	7	7	5	7	8	5
12	18U41A0512	6	6	8	8	5	7
13	18U41A0513	8	9	9	8	9	9
14	18U41A0514	9	9	8	9	8	9
15	18U41A0515	8	10	8	9	9	8
16	18U41A0516	8	6	8	8	8	6
17	18U41A0517	8	9	9	8	9	9
18	18U41A0518	10	9	7	9	8	9
19	18U41A0519	8	6	8	6	8	8
20	18U41A0520	8	9	7	9	7	8
21	18U41A0521	10	7	9	8	9	9
22	18U41A0522	9	8	9	9	8	9
23	18U41A0523	7	8	5	7	7	6
24	18U41A0524	8	6	8	8	6	8
25	18U41A0525	8	8	6	6	7	9
26	18U41A0526	8	6	5	5	6	9
27	18U41A0527	8	10	8	9	8	9
28	18U41A0528	8	8	8	8	8	8
29	18U41A0529	9	8	7	7	8	9
30	18U41A0530	10	10	10	10	10	10
31	18U41A0531	9	8	9	8	7	9
32	18U41A0532	10	9	9	9	8	7
33	18U41A0533	10	10	10	7	8	9
34	18U41A0534	10	10	10	8	9	9

35	18U41A0535	8	8	8	9	7	8
36	18U41A0536	5	5	6	8	6	8
37	18U41A0537	6	6	4	6	8	8
38	18U41A0538	8	6	8	6	7	7
39	18U41A0539	7	9	7	9	9	8
40	18U41A0540	7	8	5	8	8	6
41	18U41A0541	9	8	9	9	6	9
42	18U41A0543	8	7	5	8	9	7
43	18U41A0544	10	8	8	6	6	6
44	18U41A0545	8	8	8	9	8	9
45	18U41A0546	5	7	6	7	5	6
46	18U41A0547	7	9	8	7	7	6
47	18U41A0548	10	8	6	7	8	7
48	18U41A0549	10	10	6	8	9	9
49	18U41A0550	10	10	10	8	8	6
50	18U41A0551	10	10	10	9	9	10
51	18U41A0552	8	8	8	8	8	8
52	18U41A0553	9	9	8	10	9	9
53	18U41A0554	9	8	9	7	8	9
54	18U41A0555	10	10	10	8	9	9
55	18U41A0557	10	10	10	9	8	9
56	18U41A0558	6	6	8	6	8	8
57	18U41A0559	10	10	10	6	8	6
58	18U41A0560	6	6	6	5	7	8
59	18U41A0561	10	10	10	10	10	10
60	18U41A0562	9	10	9	10	10	10
61	18U41A0565	10	9	9	6	6	6
62	18U41A0566	10	10	10	8	8	8
63	18U41A0567	8	8	8	9	7	8
64	18U41A0568	9	8	9	8	9	9
65	18U41A0569	10	10	8	10	8	8
66	18U41A0570	6	7	5	8	6	8
67	18U41A0571	8	8	8	9	9	8
68	18U41A0572	9	8	9	10	10	10
69	18U41A0573	10	10	10	10	10	10
70	18U41A0574	10	10	10	8	8	10
71	18U41A0575	8	9	9	10	10	10
72	18U41A0576	8	8	6	8	6	6
73	18U41A0577	10	10	10	9	8	9
74	18U41A0578	8	6	6	8	8	6
75	18U41A0579	8	8	6	10	10	10
76	18U41A0580	9	7	8	5	8	7

77	18U41A0581	8	9	7	9	8	9
78	18U41A0582	10	10	8	10	10	10
79	18U41A0583	9	9	10	8	7	5
80	18U41A0584	8	10	8	9	9	8
81	18U41A0585	6	6	8	5	6	9
82	18U41A0586	10	10	10	9	8	7
83	18U41A0587	9	9	10	9	8	9
84	18U41A0588	8	8	8	8	7	9
85	17U41A0545	9	9	8	10	10	10
86	19U45A0501	8	9	9	8	8	8
87	19U45A0502	9	8	9	8	8	8
88	19U45A0503	6	10	6	9	9	8
89	19U45A0504	9	9	10	10	10	10
90	19U45A0505	8	7	7	9	8	9
91	19U45A0506	6	6	8	8	7	5
92	19U45A0507	8	6	8	6	6	8

ATTEMPTS	92	92	92	92	92	92
SCORE ABOVE 50%	96.7	97.82	90.21	93.47	96.7	95.65
ATTAINMENT %	96.7	97.82	90.21	93.47	96.7	95.65
ATTAINMENT ON 3 PO	2.901	2.93	2.7	2.8	2.901	2.86

DADI INSTITUTE OF ENGINEERING AND TECHNOLOGY

ACADEMIC YEAR 2020-2021 SUB: SOFTWARE TESTING METHODOLOGY

COURSE INSTRUCTOR : A.KAMALA PRIYA

S.L NO	TOOL	QUIZ-1	ASSIG-1	QUIZ-2	ASSIGN-2
	CO	1,2,3	1,2,3	4,5,6	4,5,6
	MAXIMUM MARKS	10	5	10	5
	ROLL NO				
1	18U41A0501	10	5	10	5
2	18U41A0502	10	5	10	5
3	18U41A0503	10	5	10	5
4	18U41A0504	8	5	8	5
5	18U41A0505	10	5	10	5
6	18U41A0506	10	5	10	5
7	18U41A0507	5	5	6	5
8	18U41A0508	10	5	10	5
9	18U41A0509	10	5	10	5
10	18U41A0510	10	5	10	5
11	18U41A0511	10	5	10	5
12	18U41A0512	10	5	10	5
13	18U41A0513	10	5	10	5
14	18U41A0514	10	5	10	5
15	18U41A0515	10	5	10	5
16	18U41A0516	10	5	10	5
17	18U41A0517	10	5	10	5
18	18U41A0518	10	5	10	5
19	18U41A0519	10	5	10	5
20	18U41A0520	10	5	10	5
21	18U41A0521	10	5	10	5
22	18U41A0522	9	5	9	5
23	18U41A0523	9	5	9	5
24	18U41A0524	10	5	10	5
25	18U41A0525	10	5	10	5
26	18U41A0526	10	5	10	5
27	18U41A0527	10	5	10	5
28	18U41A0528	10	5	10	5
29	18U41A0529	10	5	10	5
30	18U41A0530	10	5	10	5
31	18U41A0531	8	5	8	5
32	18U41A0532	9	5	9	5
33	18U41A0533	10	5	10	5
34	18U41A0534	10	5	10	5
35	18U41A0535	10	5	10	5

36	18U41A0536	10	5	10	5
37	18U41A0537	10	5	10	5
38	18U41A0538	10	5	9	5
39	18U41A0539	10	5	10	5
40	18U41A0540	10	5	9	5
41	18U41A0541	10	5	10	5
42	18U41A0543	10	5	10	5
43	18U41A0544	10	5	10	5
44	18U41A0545	10	5	10	5
45	18U41A0546	10	5	9	5
46	18U41A0547	10	5	9	5
47	18U41A0548	10	5	10	5
48	18U41A0549	10	5	10	5
49	18U41A0550	10	5	10	5
50	18U41A0551	10	5	10	5
51	18U41A0552	10	5	10	5
52	18U41A0553	10	5	10	5
53	18U41A0554	10	5	10	5
54	18U41A0555	10	5	10	5
55	18U41A0557	10	5	10	5
56	18U41A0558	10	5	10	5
57	18U41A0559	10	5	10	5
58	18U41A0560	10	5	10	5
59	18U41A0561	10	5	10	5
60	18U41A0562	10	5	10	5
61	18U41A0565	10	5	10	5
62	18U41A0566	10	5	10	5
63	18U41A0567	10	5	10	5
64	18U41A0568	10	5	10	5
65	18U41A0569	10	5	10	5
66	18U41A0570	10	5	10	5
67	18U41A0571	10	5	10	5
68	18U41A0572	10	5	10	5
69	18U41A0573	10	5	10	5
70	18U41A0574	10	5	10	5
71	18U41A0575	10	5	10	5
72	18U41A0576	10	5	10	5
73	18U41A0577	10	5	10	5
74	18U41A0578	10	5	10	5
75	18U41A0579	10	5	10	5
76	18U41A0580	10	5	10	5
77	18U41A0581	10	5	10	5

78	18U41A0582	10	5	10	5
79	18U41A0583	10	5	10	5
80	18U41A0584	10	5	10	5
81	18U41A0585	10	5	10	5
82	18U41A0586	10	5	10	5
83	18U41A0587	10	5	10	5
84	18U41A0588	10	5	10	5
85	17U41A0545	10	5	10	5
86	19U45A0501	10	5	10	5
87	19U45A0502	10	5	10	5
88	19U45A0503	10	5	10	5
89	19U45A0504	10	5	10	5
90	19U45A0505	10	5	10	5
91	19U45A0506	10	5	10	5
92	19U45A0507	10	5	10	5

ATTEMPTS	92	92	92	92
SCORE ABOVE 50%	91	92	92	92
ATTAINMENT %	98.19	100	100	100
ATTAINMENT ON 3 PO	2.94	3	3	3

Average   2.97   3

DADI INSTITUTE OF ENGINEERING AND TECHNOLOGY
ACADEMIC YEAR 2020-2021

S.L NO	END EXAM ATTAINMENT	
	ROLL NO	GRADE
1	18U41A0501	C
2	18U41A0502	B
3	18U41A0503	A
4	18U41A0504	B
5	18U41A0505	B
6	18U41A0506	A
7	18U41A0507	C
8	18U41A0508	A
9	18U41A0509	A
10	18U41A0510	A
11	18U41A0511	F
12	18U41A0512	B
13	18U41A0513	C
14	18U41A0514	B
15	18U41A0515	A
16	18U41A0516	C
17	18U41A0517	B
18	18U41A0518	F
19	18U41A0519	B
20	18U41A0520	C
21	18U41A0521	A
22	18U41A0522	B
23	18U41A0523	A
24	18U41A0524	B
25	18U41A0525	F
26	18U41A0526	C
27	18U41A0527	C
28	18U41A0528	B
29	18U41A0529	B
30	18U41A0530	B
31	18U41A0531	C
32	18U41A0532	B
33	18U41A0533	A
34	18U41A0534	A
35	18U41A0535	B

36	18U41A0536	C
37	18U41A0537	C
38	18U41A0538	C
39	18U41A0539	B
40	18U41A0540	C
41	18U41A0541	A
42	18U41A0543	B
43	18U41A0544	B
44	18U41A0545	B
45	18U41A0546	C
46	18U41A0547	C
47	18U41A0548	C
48	18U41A0549	C
49	18U41A0550	B
50	18U41A0551	S
51	18U41A0552	B
52	18U41A0553	B
53	18U41A0554	S
54	18U41A0555	A
55	18U41A0557	B
56	18U41A0558	C
57	18U41A0559	A
58	18U41A0560	B
59	18U41A0561	A
60	18U41A0562	C
61	18U41A0565	B
62	18U41A0566	A
63	18U41A0567	B
64	18U41A0568	C
65	18U41A0569	B
66	18U41A0570	B
67	18U41A0571	C
68	18U41A0572	C
69	18U41A0573	B
70	18U41A0574	A
71	18U41A0575	B
72	18U41A0576	F
73	18U41A0577	B
74	18U41A0578	F
75	18U41A0579	C
76	18U41A0580	C
77	18U41A0581	F

78	18U41A0582	B
79	18U41A0583	B
80	18U41A0584	C
81	18U41A0585	F
82	18U41A0586	B
83	18U41A0587	B
84	18U41A0588	C
85	17U41A0545	A
86	19U45A0501	C
87	19U45A0502	B
88	19U45A0503	C
89	19U45A0504	B
90	19U45A0505	B
91	19U45A0506	D
92	19U45A0507	C

ATTEMPTS	92
SCORE ABOVE 50%	85
ATTAINMENT %	92.39
ATTAINMENT ON 3 POINT SCALE	2.77

LEVEL 1	lessthan 60%	1
LEVEL 2	60-79%	2
LEVEL 3	80% and more	3

DADI INSTITUTE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCEINCE AND ENGINEERING
ATTAINMENT SUMMARY

After completion of this course student will be able to

C312.1	Understand the basic testing procedures
C312.2	Able to support in generating test cases
C312.3	Able to support in generating test Suites
C312.4	Able to test application manually by applying different testing methods
C312.5	Able to test application manually by applying Different automation tools
C312.6	Apply tools to resolve the problem in real time environment

COURSE OUTCOME	TEST	IZ&ASSIGNME	AVERAGE	ENDEXAM	ATTAINMENT
C312.1	2.901	2.97	2.94	3	**2.98**
C312.2	2.93	2.97	2.95	3	**2.986**
C312.3	2.7	2.97	2.84	3	**2.94**
C312.4	2.8	3	2.90	3	**2.96**
C312.5	2.901	3	2.95	3	**2.98**
C312.6	2.86	3	2.93	3	**2.972**

ATTAINMENT = END EXAM 80% + INTERNAL 20%

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C312.1		2	1		1								2	
C312.2		2	1		1								2	
C312.3		2	1		1								2	
C312.4		2	1		1								2	
C312.5		2	1		1								2	
C312.6		2	1		1								2	

CO-PO ATTAINMENT

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C312.1		**1.98**	**0.993**		**0.993**								**1.98**	
C312.2		**1.99**	**0.995**		**0.995**								**1.99**	
C312.3		**1.96**	**0.98**		**0.98**								**1.96**	
C312.4		**1.972**	**0.986**		**0.986**								**1.972**	
C312.5		**1.986**	**0.993**		**0.993**								**1.986**	
C312.6		**1.98**	**0.99**		**0.99**								**1.98**	
Average		**1.978**	**0.99**		**0.99**								**1.978**	