IT 6004 – SOFTWARE TESTING

Corresponding Lab, with code (If any) : -

Course Prerequisites: CS6403 Software Engineering

Course Outcomes

On successful completion of this course, the student will be able to

IT 6004.1	To understand the testing principles, testers role in software development organization and Defects analysis
IT 6004.2	To understand how to design test cases suitable for a software development for different domains and to identify suitable tests to be carried out.
IT 6004.3	Understand the different levels of testing and how testing is applied in OO systems
IT 6004.4	Understand how to prepare test planning based on document and how to document the test plan and test cases designed
IT 6004.5	Understand the use of automatic testing tools and how to validate the test plans using testing metrics.

MAPPING BETWEEN CO AND PO, PSO WITH CORRELATION LEVEL 1/2/3

IT6004	POs												PSOs			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	BO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
IT 6004.1	1	1	1	1	0	2	1	1	2	2	1	2	1	1	1	2
IT 6004.2	1	1	2	1	0	1	0	1	2	2	2	2	1	2	2	2
IT 6004.3	0	1	1	1	0	1	0	0	2	2	2	2	0	1	1	1
IT 6004.4	0	0	2	0	1	0	0	1	2	2	2	2	0	2	1	1
IT 6004.5	1	2	1	2	2	0	0	0	2	1	2	2	1	1	1	2

UNIT I - IT6004.1

Sl. No.	Course Content	Knowledge level	No. of Hrs to be handled	Books Refered
1	Testing as an Engineering Activity – Testing as a Process – Testing axioms	U	1	R1, WSR1
2	Software Testing Principles	U & Ap	2	R1
3	The Tester's Role in a Software Development Organization	U	1	R1
4	Origins of Defects – Cost of defects	U	2	R1
5	Defect Classes – The Defect Repository and Test Design	U	1	R1
6	Defect Examples, Developer /Tester Support of Developing a Defect Repository	U & Ap	1	R1
7	Defect Prevention strategies.	U &Ap	2	R1

Unit II - IT6004.2

Sl. No.	Course Content	Knowledge level	No. of Hrs to be handled	Books Refered
1	Test case Design Strategies – Using Black Box Approach to Test Case Design	U	1	T1
2	Random Testing – Requirements based testing	U & Ap	1	T1
3	Boundary Value Analysis	R	1	T1, WSR2
4	Equivalence Class Partitioning	R	1	T1, WSR2
5	State based testing – Cause-effect graphing	U	1	T1
6	Compatibility testing – user documentation testing – domain testing	U	1	T1
7	Using White Box Approach to Test design – Test Adequacy Criteria	U & Ap	1	T1
8	static testing vs. structural testing – code functional testing	U	1	T1
9	Coverage and Control Flow Graphs – Covering Code Logic	U & Ap	1	T1, WSR2
10	Paths – code complexity testing – Evaluating Test Adequacy	U & E	1	T1, WSR2

Unit III - IT6004.3

Sl. No.	Course Content	Knowledge level	No. of Hrs to be handled	Books Refered
1	The need for Levels of Testing – Unit Test – Unit Test Planning	R & Ap	1	T1
2	Designing the Unit Tests – The Test Harness – Running the Unit tests and Recording results	U & Ap	1	T1
3	Integration tests – Designing Integration Tests – Integration Test Planning	R & Ap	1	T1

4	Scenario testing – Defect bash elimination System Testing	R & Ap	1	T1
5	Acceptance testing – Performance testing – Regression Testing	R	1	T1
6	Internationalization testing – Ad-hoc testing – Alpha, Beta Tests	R & U	1	T2
7	Testing OO systems – Usability and Accessibility testing	U	2	T2
8	Configuration testing – Compatibility testing	R & U	1	T2
9	Testing the documentation – Website testing.	U & An	2	T2

Unit IV - IT6004.4

Sl. No.	Course Content	Knowledge level	No. of Hrs to be handled	Books Refered
1	People and organizational issues in testing	U & An	1	T1
2	Organization structures for testing teams, testing services	U & Ap	2	T1
3	Test Planning – Test Plan Components	U & An	1	T1
4	Test Plan Attachments	U & An	1	T1
5	Locating Test Items – test management – test process	U	2	T1
6	Reporting Test Results – The role of three groups in Test Planning and Policy Development	U & An	2	T1
7	Skills needed by a test specialist	U	1	R1
8	Building a Testing Group.	U	1	R1

Unit V - IT6004.5

Sl. No.	Course Content	Knowledge level	No. of Hrs to be handled	Books Refered
1	Software test automation	U	1	T1, W1R2
2	Skill needed for automation	U	1	T1
3	Scope of automation	U	1	T1
4	Design and architecture for automation	U & Ap	2	T1
5	Requirements for a test tool and challenges in automation	U & An	2	T1
6	Project Metrics	U & E	2	T1
7	Progress Metrics	U & E	1	T1
8	Productivity Metrics	U & E	2	T1

R – Remember; Ap – Apply; An – Analyze; U – Understand; E- Evaluate ;C-Create

Sl. No.	Content beyond syllabus	PO mapping	PSO mapping
1.	Creating an environment supportive for software testing	b, d,e, f,g	a,b,c

TEXT BOOKS:

1. Srinivasan Desikan and Gopalaswamy Ramesh, "Software Testing – Principles and Practices", PearsonEducation,2006.

2. Ron Patton, "Software Testing", Second Edition, Sams Publishing, Pearson Education, 2007.

REFERENCES:

1. Ilene Burnstein, "Practical Software Testing", Springer International Edition, 2003.

2. Edward Kit," Software Testing in the Real World – Improving the Process", Pearson Education, 1995.

WEB SOURCE REFERENCES:

1. www.softwaretestingclass.com
2. www.softwaretestinghelp.com
3. www.testingtools.com/test-automation

IT6004 SOFTWARE TESTING L T P C 3 0 0 3

OBJECTIVES:

The student should be made to:

- Expose the criteria for test cases.
- Learn the design of test cases.
- Be familiar with test management and test automation techniques.
- Be exposed to test metrics and measurements.

UNIT I INTRODUCTION 9

Testing as an Engineering Activity – Testing as a Process – Testing axioms – Basic definitions – Software Testing Principles – The Tester's Role in a Software Development Organization – Origins of Defects – Cost of defects – Defect Classes – The Defect Repository and Test Design – Defect Examples – Developer/Tester Support of Developing a Defect Repository – Defect Prevention strategies.

UNIT II TEST CASE DESIGN 9

Test case Design Strategies – Using Black Bod Approach to Test Case Design – Random Testing – Requirements based testing – Boundary Value Analysis – Equivalence Class Partitioning – Statebased testing – Cause-effect graphing – Compatibility testing – user documentation testing – domain testing – Using White Box Approach to Test design – Test Adequacy Criteria – static testing vs. structural testing – code functional testing – Coverage and Control Flow Graphs – Covering Code Logic – Paths – code complexity testing – Evaluating Test Adequacy Criteria.

UNIT III LEVELS OF TESTING 9

The need for Levers of Testing – Unit Test – Unit Test Planning – Designing the Unit Tests – The Test Harness – Running the Unit tests and Recording results – Integration tests – Designing Integration Tests – Integration Test Planning – Scenario testing – Defect bash elimination System Testing – Acceptance testing – Performance testing – Regression Testing – Internationalization testing – Ad-hoc testing – Alpha, Beta Tests – Testing OO systems – Usability and Accessibility testing – Configuration testing – Compatibility testing – Testing the documentation – Website testing.

UNIT IV TEST MANAGEMENT 9

People and organizational issues in testing – Organization structures for testing teams – testing services – Test Planning – Test Plan Components – Test Plan Attachments – Locating Test Items – test management – test process – Reporting Test Results – The role of three groups in Test Planning and Policy Development – Introducing the test specialist – Skills needed by a test specialist – Building a Testing Group.

UNIT V TEST AUTOMATION 9

Software test automation – skill needed for automation – scope of automation – design and architecture for automation – requirements for a test tool – challenges in automation – Test metrics and measurements – project, progress and productivity metrics.

TOTAL: 45 PERIODS

OUTCOMES:

At the end of the course the students will be able to

- Design test cases suitable for a software development for different domains.
- Identify suitable tests to be carried out.
- Prepare test planning based on the document.
- Document test plans and test cases designed.
- Use of automatic testing tools.
- Develop and validate a test plan.

TEXT BOOKS:

1. Srinivasan Desikan and Gopalaswamy Ramesh, "Software Testing – Principles and Practices", Pearson Education, 2006.
2. Ron Patton, "Software Testing", Second Edition, Sams Publishing, Pearson Education, 2007.

REFERENCES:

1. Ilene Burnstein, "Practical Software Testing", Springer International Edition, 2003.
2. Edward Kit," Software Testing in the Real World – Improving the Process", Pearson Education, 1995.
3. Boris Beizer," Software Testing Techniques" – 2nd Edition, Van Nostrand Reinhold, New York, 1990.
4. Aditya P. Mathur, "Foundations of Software Testing _ Fundamental Algorithms and Techniques", Dorling Kindersley (India) Pvt. Ltd., Pearson Education, 2008.

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SUMMARY OF CLASS WORK

RECORD OF ATTENDANCE AND ASSESSMENT

Name of the Staff: C. J. Raman

Department of the Staff : IT

Semester From : June 2017 To Sep 2017

Class & Branch : IV year IT - A

Code No. / Subject Name : Software Testing

SYLLABUS COVERAGE

Unit No.	Started on	Completed on	No. of hours	Sign of staff with Date	Sign of HO with Date
I	5/6/17	14/6/17	10	14/6/17	21/6
II	14/6/17	5/7/17	10	5/7/17	11/7
III	5/7/17	15/7/17	12	15/7/17	16/7/17
IV	17/7/17	4/8/17	12	4/8/17	7/8
V	4/8/17	4/9/17	11	4/9/17	4/9

TIME TABLE

Period / Day	1	2	3	4	5	6	7	8	9	10
Monday				IT 6004						
Tuesday		IT 6004								
Wednesday								IT 6004	IT 6004	
Thursday									IT 6004	
Friday			IT 6004	IT 6004						

LESSON PLAN

Unit : I From 5/6/17 To 22/6/17 No. of Hours : 10

Sl. No.	TOPICS TO BE COVERED	BOOKS TO BE REFERRED
1.	Testing - Basic definition & Introduction	Ilene Burnstein, "Practical Software Testing", Spainger International Edition, 2003
2.	Testing as an Engineering Activity	
3.	Testing as a process	
4.	Testing axioms	
5.	Software Testing Principle	
6.	Tester's Role in s/w development organization	
7.	Origin of defects, cost of defects	
8.	Defect Classes & Defect Repository	
9.	Test Design & Defect Examples	
10.	Developer / Tester Support - Defect Repository Defect Prevention Strategies	

LESSON PLAN

Unit : II From 23/6/17 To 11/7/17 No. of Hours : 10

Sl. No.	TOPICS TO BE COVERED	BOOKS TO BE REFERRED
1.	Test Case Design Strategies - Using Black Box Approach to Test Case Design	Srinivasan Desikan, Gopalaswamy Ramesh, "Software Testing Principles & Practices", Pearson Education, 2006
2.	Random Testing - Requirements based testing	
3.	Boundary Value Analysis	
4.	Equivalence Class Partitioning	
5.	State based testing - Cause-effect graphing	
6.	Compatibility testing - User documentation testing. domain testing	
7.	Using White Box Approach to Test design - Test Adequacy Criteria	
8.	Static testing vs Structural testing - code-functional testing	
9.	Coverage and Control-flow graph - Covering code logic	
10.	Paths - code complexity testing - Evaluating test adequacy criteria	

LESSON PLAN

Unit : III From 12/7/17 To 4/8/17 No. of Hours : 10

Sl. No.	TOPICS TO BE COVERED	BOOKS TO BE REFERRED
1.	The need for levels of Testing. Unit Test Planning	Srinivasan Desikan, Gopalaswamy Ramesh, "Software Testing: Principles & Practices", Pearson Education, 2006
2.	Designing the Unit Test - The test Harness. Running the unit test and Recording results	
3.	Integration tests. Designing Integration tests Integration test Planning	
4.	Scenario testing - Defect bash elimination System Testing	
5.	Acceptance testing. Performance testing. Regression Testing	
6.	Internationalization testing - Ad hoc testing Alpha Testing and Beta Testing	Ron Patton, "Software Testing", 2nd Edition, Sams Publishing, Pearson Education, 2007
7.	Testing object oriented systems	
8.	Usability and Accessibility Testing	
9.	Configuration Testing. Compatibility testing	
10.	Testing the documentation - Website Testing	

LESSON PLAN

Unit : IV From 5/8/17 To 24/8/17 No. of Hours : 10

Sl. No.	TOPICS TO BE COVERED	BOOKS TO BE REFERRED
1.	People and Organizational issue in testing	
2.	Organization Structures for testing teams, testing services	
3.	Test Planning - Test Plan components	Srinivasan Desikan, Gopalaswamy Ramesh "Software Testing - Principles & Practices", Pearson Education, 2006
4.	Test Plan Attachments	
5	Locating Test Items, Test Management - Test process	
6.	Reporting Test Results	
7.	The role of three groups in Test Planning and Policy Development	Ilene Burnstein, "Practical Software testing", Springer International Edition, 2003
8.	Introducing the test specialist	
9.	Skills needed by a test Specialist	
10.	Building a testing Group	

LESSON PLAN

Unit :_____ From _____ To _____ No. of Hours :_____

Sl. No.	TOPICS TO BE COVERED	BOOKS TO BE REFERRED

STAFF SIGNATURE 2/6/17

HOD SIGNATURE 2/6/17

PRINCIPAL 2/6/17

CHAIRMAN & MANAGING DIRECTOR 2/6/17

Roll No.	Reg.No.	Name	Report Period 1	2	3	4
14 IT 101	312314205001	Aakash D				
102	2	Aashieka Arumugam ✓				
103	3	Abisha Rayen B ✓				
104	4	Abishek R K				
105	5	Adithya V				
106	6	Aghilan R				
107	7	Aishwarya V				
108	8	Ajay Narayanan				
201	9	Ajitha ✓				
110	10	Ajith kumar A				
109	11	Ajit Narayan V				
111	12	Akshay P				
112	13	Akshaya R				
202	14	Akshaya R T				
113	15	Ananthi I ✓				
114	16	Anar Razma A ✓				
115	17	Aniruth S				
116	18	Ann Maria John ✓				
117	19	Aravind S				
203	20	Aravinth S				
118	21	Ardhiya Chelladurai Joseph				
119	22	Arulalan A				
204	23	Ashavia T				
205	24	Aswin B				
278	25	Aswini L				

Total Absent	A	5	13	13	10	12	12	12	11	10	10	10	10
Total Present	21	20	12	12	15	13	13	13	14	15	15	14	14

Roll No.	Reg.No.
14 IT 101	312314205001
102	2
103	3
104	4
105	5
106	6
107	7
108	8
201	9
110	10
109	11
111	12
112	13
202	14
113	15
114	16
115	17
116	18
117	19
203	20
118	21
119	22
204	23
205	24
278	25

MONTH	6				7								
DATE	27	28		29	3	4	5		6	10	12	13	
PERIOD	2	8	9	9	4	9	8	9	9	1	8	9	2
	a	a	a	/	/	/	/	/	/	/	/	/	/
	/	/	/	/	/	/	/	/	a	a	a	a	a
	/	/	/	a	/	a	a	a	/	a	a	a	a
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	/	/	/	/	/	/	/	/	a	/	/	/	/
Total ABSENT	a	b	b	12	b	b	2	2	14	2	6	2	a

MONTH	1	3										
DATE	13	14			15		17	18	19		21	
PERIOD	9	3	4	b	3	4	4	2	4	5	3	4
	/	a	a	/	/	/	/	/	a	a	/	/
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	/	/	/	/	/	/	/	/	a	a	/	/
Total ABSENT	9	12	12	9	12	12	8	1	17	17	1	1

UNIT TEST 1 (40) 7/7/17	TEST 1 (30) 21/7/17	EXAM 1 (100) 28/7/17	MODEL (80) 4/8/17	TEST 2 (40) 22/8/17	TEST 2 (30) 7/9/17	EXAM 2 (100) 15/9/17	MODEL 2 (80) 21/9/17	TEST 3 (30) 23/9/17	EXAM (100) 2/10/17	MODEL 3 (80)
02	01	03	45	04	15	45	48	22	61	
35	27	80		26	30	68		25	74	
AB	20	68		22	19 20	28	40	17	67	
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11	12	04	56	21	04	25	56	26	66	
-0-	05	04	40	02	02	05		05	33	56
24	22	50		27	27	AB	60	27	64	
30	11	08	42	-0-	-0-	16		15	51	
28	24	75		28	27	63		29	84	
-0-	01	-0-	46	-0-	AB	25	45	05	45	
10	06	23	42	11	07	31	40	13	66	
02	03	02	48	02	01	03		12	30	56
13	15	45	56	34	15	16		22	79	
20	19	52	56	24	08	25	56	13	72	
22	12	57		20	18	50		14	46	
17	20	63		28	29	68		30	74	
07	01	04	44	20	01	11		08	57	
42	26	79		42	28	86		29	78	
32	23	39	56	26	20	60		21	73	
-0-	13	03	48	21	15	27	56	13	AB	60
21	08	12	48	10	10	11		23	65	
08	08	25	42	05	08	10		10	54	
20	23	49	56	16	11	25	56	24	67	
-0-	09	05	56	26	17	12		30	62	
24	11	45 46	56	30	19	25	48	15	63	

Roll No.	Reg.No.		1	2	3	4
4 IT 120	312316205024	Bavna S				
121	27	Bharath P				
122	28	Bharath S				
123	29	Bharatwaj P ✓				
206	30	Bhavani Kannan S ✓				
207	31	Bhuvaneswaran A ✓				
208	32	Brundha J ✓				
124	33	Danush Kumar B				
209	34	Darshan Kumar G				
210	35	Deepika T				
125	36	Derrick Jeyasekar L				
126	37	Devarani Keerthana V				
359	38	Dhakshin Raj S				
211	39	Dhinesh E				
127	40	Dilip Vishwanath PMK				
267	41	Dillan Fernando J				
272	42	Dinesh K				
212	43	Dinesh Kumar S L				
128	44	Diwahar Sam J				
129	45	Elangovan S				
130	46	Ganesh R				
213	47	Geoffri Kingston ✓				
249	160	Gibash S				
LIT401	301	Hariharan Sudhan M				

14 77 120	3123/6203024
121	27
122	28
123	29
206	30
207	31
208	32
124	33
209	34
210	35
125	36
126	37
359	38
211	39
127	40
267	41
272	42
212	43
128	44
129	45
130	46
213	47
249	160
177401	301

DATE	27	28		29	3	4	5		6	10	12		13
PERIOD	2	8	9	9	4	9	8	9	9	4	8	9	2
Total ABSENT	6	5	5	13	5	6	2	2	15	5	2	2	5
Total PRESENT	18	19	19	11	19	18	22	22	9	19	22	22	19

DATE	13	14			15		17	18	19		21
PERIOD	9	3	4	6	3	4	4	2	4	5	3
Total ABSENT	7	8	8	4	9	9	6	1	20	20	1
Total PRESENT	17	16	16	18	15	15	18	23	4	4	23

Reg.No.	Name	ASSESSMENT TYPE	UNIT TEST 1	CYCLE TEST 1	MODEL EXAM 1	REPEAT MODEL	UNIT TEST 2	CYCLE TEST 2	MODEL EXAM 2	REPEAT MODEL 2	CYCLE TEST
		DATE	(40) 7/7/17	(30) 21/7/17	(100) 28/7/17	(60) 4/8/17	(40) 22/8/17	(30) 7/9/17	(100) 15/9/17	(60) 21/9/17	(30) 22/9
3123420302	Bavna S		22	19	AB	60	24	29	13		26
27	Bharath P		10	05	07	52	02	04	10		16
28	Bharath S		02	04	02	56	10	07	18		24
29	Bharatwaj P ✓		18	17	57		23	24	25	48	28
30	Bhavani Karpagam S ✓		40	27	70		38	30	35	56	30
31	Bhuvaneswaran A ✓		10	22	66 71		36	21	62		28
32	Brindha J ✓		35	23	79		39	26	53	48	29
33	Danush Kumar B		03	10	02	52	16	15	02		24
34	Darshan Kumar G		04	14	15	56	05	=0=	25	48	21
35	Deepika T		10	24	45	62	28	23	10		25
36	Derrick Jeyasekar L		08	06	13	40	20	AB	11		03
37	Devarani Keerthana V		14	14	24	58	16	13	30	42	21
38	Dhakshin Raj S		05	12	08	43	09	11	09		04
39	Dhinesh E		24	14	03	60	13	24	34	52	25
40	Dilip Vishwanath PMK		12	06	18	40	17	21	15		16
41	Dillan Fernando J		=0=	05	02	50	09	03	AB	40	15
42	Dinesh K		21	07	10	52	12	09	06	42	36
43	Dinesh Kumar S L		05	09	20	58	05	01	15		12
44	Diwahar Ram J		02	03	02	48	20	AB	53		25
45	Elangovan S		24	17	52	50	22	26	59		26
46	Ganesh R		=0=	05	04	54	05	09	33	52	24
47	Geethi Kingston ✓		09=	27	71		26	28	65		28
160	Gibash S		02	AB -0-	AB	40	02	-0-	01		19
301	Harikeran Sudhan M		01	=0=	04	27	08	=0=	05		-0

SUMMARY OF CLASS WORK

DATE: 5/6/17 PERIOD: 4 TOTAL NO. OF CLASS 1 UNIT: I

* Introduction
  Need for Testing
* Engineering Approach to software development
* Elements of Engineering disciplines

DATE: 6/6/17 PERIOD: 2 TOTAL NO. OF CLASS 2 UNIT: I

* Test Specialist
* The Role of Process in software Quality
  - practices
  - process

DATE: 7/6/17 PERIOD: 8, 9 TOTAL NO. OF CLASS 4 UNIT: I

* Testing as a process
  Definition - Testing
  - verification
  - validation
* Activities of testing Domain

Sign of HOD with Date 5/6/17

SUMMARY OF CLASS WORK

DATE: 8/6/17 PERIOD: 9 TOTAL NO. OF CLASS 5 UNIT: I

* Testing Maturity Model
  - Levels
* Testing Principles
  - Role of Tester in S/W Development Organisation

DATE: 9/6/17 PERIOD: 3, 4 TOTAL NO. OF CLASS 7 UNIT: I

* Difficulties and Challenges of Tester
* Origin of Defects
  - Education
  - Process
  - Communication
  - Oversight
  - Transcription

DATE: 12/6/17 PERIOD: 4 TOTAL NO. OF CLASS 8 UNIT: I

* Defect Classes
  - Requirements/Specification
  - Design
  - Coding
  - Testing

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 27/6/17 PERIOD: 2 TOTAL NO. OF CLASS 14 UNIT: II

* Cause and Effect Graphing
  Approach
  - Example
* Error Guessing

DATE: 28/6/17 PERIOD: 8, 9 TOTAL NO. OF CLASS 16 UNIT: II

* State Transition Testing
* Configuration Testing
* Compatibility Testing
* Domain Testing
* White Box Approach
  - Test Adequacy Criteria

DATE: 29/6/17 PERIOD: 9 TOTAL NO. OF CLASS 17 UNIT: II

* Static testing vs Structural Testing
* Code - functional Testing

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 3/7/17 PERIOD: 4 TOTAL NO. OF CLASS 18 UNIT : II

* Coverage and control flow graphs
* Covering Code Logic

DATE: 4/7/17 PERIOD: 9 TOTAL NO. OF CLASS 19 UNIT : II

* Paths - example
* Code complexity testing
  - example & explanation

DATE: 5/7/17 PERIOD: 8,9 TOTAL NO. OF CLASS 21 UNIT : II , III

* Evaluating Test adequacy criteria
  - Testing Axioms.

Levels of Testing
- Introduction
- Need for the levels of testing

Sign of HOD with Date 8/7/17

SUMMARY OF CLASS WORK

DATE: 6/7/17 PERIOD: 9 TOTAL NO. OF CLASS 22 UNIT: III

* Unit Test
  - Basics
* Programming paradigms
  - Unit in procedural & object oriented languages

DATE: 10/7/17 PERIOD: 4 TOTAL NO. OF CLASS 23 UNIT: III

* Unit Test Planning
  - Designing the Unit Test
  - Development phases for Unit Testing
    phase - 1 Describing the Approach & Risk
    phase - 2 Identifying the features
    phase - 3 Adding levels of details

DATE: 12/7/17 PERIOD: 8,9 TOTAL NO. OF CLASS 25 UNIT: III

* Issues in Testing
* Test Harness
* Running the Test & Recording the results
* Integration Test
* Integration in
  - procedural
  - object oriented systems

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 6/7/17 PERIOD: 9 TOTAL NO. OF CLASS 22 UNIT: III

* Unit Test
  - Basics
* Programming paradigms
  - Unit in procedural & object oriented languages

DATE: 10/7/17 PERIOD: 4 TOTAL NO. OF CLASS 23 UNIT: III

* Unit Test Planning
  - Designing the Unit Test
  - Development phases for Unit Testing
    phase - 1 Describing the Approach & Risk
    phase - 2 Identifying the features
    phase - 3 Adding levels of details

DATE: 12/7/17 PERIOD: 8,9 TOTAL NO. OF CLASS 25 UNIT: III

* Issues in Testing
* Test Harness
* Running the Test & Recording the results
* Integration Test
* Integration in
  - procedural
  - object oriented systems

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 13/7/17 PERIOD: 2, 9 TOTAL NO. OF CLASS 27 UNIT: III

* Designing Integration Test
* Planning Integration Test
* Cluster Test Plan
* System Test
  - Functional Testing
  - Performance Testing
  - Stress Testing
  - Configuration Testing

DATE: 14/7/17 PERIOD: 3, 4, 6 TOTAL NO. OF CLASS 30 UNIT: III

* Security Testing
* Recovery Testing
* Regression Testing
* Internationalization & Localization Testing
* Adhoc Testing
* Alpha, Beta and Acceptance Testing
* Usability and User Interface Testing
  - 7 important Traits
* Compatibility Testing

DATE: 15/7/17 PERIOD: 3, 4 TOTAL NO. OF CLASS 32 UNIT: III

* Testing the Documentation
  - Documentation testing Checklist
* Website Testing
  Black box, White box & Grey Box Testing
  - Configuration & Compatibility Testing
  - Usability Testing

Sign of HOD with Date 15/7/17

SUMMARY OF CLASS WORK

DATE: 17/7/17 PERIOD: 4 TOTAL NO. OF CLASS 33 UNIT: IV

* People and Organizational Issues in Testing
  - Perceptions & misconceptions about Testing
  - Not challenging
  - Not providing Career path
  - What is wrong with me
  - No ownership
  - Destructive purpose
  - Adversaries

DATE: 19/7/17 PERIOD: 4,5 TOTAL NO. OF CLASS 35 UNIT: IV

* Comparision between Testing & Development function
* Areas of progression in testing career
- Career progression & Responsibilities of team members
  - Test Engineer
  - Senior Test Engineer
  - Test Lead
  - Project Manager
  - Test Architect

DATE: 21/7/17 PERIOD: 3,4 TOTAL NO. OF CLASS 37 UNIT: IV

* Organizational Structures for Testing Team
  - Dimensions - Organization type - Geographic distribution
* Testing Team Structures for
  - Single product Company
  - multi product Company

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 29/7/17 PERIOD: 6 TOTAL NO. OF CLASS 38 UNIT : IV

* Options for Organizing Testing Teams
  - Advantages

DATE: 31/7/17 PERIOD: 4 TOTAL NO. OF CLASS 39 UNIT : IV

* Organizational Structures for distributing Testing Teams
  - Challenges in global teams
  - Test Planning
  - Hierarchy of Test Plan

DATE: 1/8/17 PERIOD: 2 TOTAL NO. OF CLASS 40 UNIT : IV

* Test Plan Components
  - explanation

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 2/8/17 PERIOD: 8,9 TOTAL NO. OF CLASS 42 UNIT: IV

* Test Plan Attachments
  - Test Design Specification
  - Test Case Specification
  - Test Procedure Specification
* Steps in procedure
* Locating Test Items
  - Test Item Transmittal Report
  - Reporting Test Results

DATE: 3/8/17 PERIOD: 9 TOTAL NO. OF CLASS 43 UNIT: IV

* Test Log
* Test Incident Report
* Test Summary Report
* Relationships between all the test related documents
* The role of three groups in Test Planning and Policy Development

DATE: 4/8/17 PERIOD: 3,4 TOTAL NO. OF CLASS 45 UNIT: IV, V

* Introducing the Test Specialist
  - Responsibilities
  - Skills needed
    - Personal & Managerial Skills
    - Technical Skills
* Building a Test Group - Steps
* Software Test Automation
  - Introduction

Sign of HOD with Date 4/8/17

SUMMARY OF CLASS WORK

DATE: 7/8/17 PERIOD: 4 TOTAL NO. OF CLASS 46 UNIT: V

* Automation
  - Skill needed for Automation

DATE: 8/8/17 PERIOD: 2 TOTAL NO. OF CLASS 47 UNIT: V

* Scope of Automation
  - Generations of Automation
    - First generation
    - second generation
    - Third generation

DATE: 16/8/17 PERIOD: 8,9 TOTAL NO. OF CLASS 49 UNIT: V

* Design and Architecture for Automation
  Block diagram & module explanation

- External modules
- Scenario & Configuration File modules
- Tools & Result modules
- Report Generator Modules

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 17/8/17 PERIOD: 9 TOTAL NO. OF CLASS 50 UNIT: V

* Requirements for a Test Tool
* Criteria for Selecting a Testing Tool
  - Meeting requirement
  - Technology expectations
  - Training skills - Management Aspect

DATE: 19/8/17 PERIOD: 9 TOTAL NO. OF CLASS 51 UNIT: V

* Challenges in automation
  - Testing the complete application
  - Misunderstanding of Company processes
  - Relationship with developers
  - Regression Testing
  - Time Constraint
  - Which Test to Execute first
  - Understanding requirement
  - Automation Testing

DATE: 21/8/17 PERIOD: 4 TOTAL NO. OF CLASS 52 UNIT: V

* Test Metrics and Measurements
  - Types of Metrics
    * project metrics
    * progress metrics
    * productivity metrics

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 1/9/17 PERIOD: 3, 4 TOTAL NO. OF CLASS 54 UNIT: V

* Project Metrics
  - Need & Importance
  - Steps in metrics program
    - Identify - Transform - Action
    - Decide - Perform - Define

DATE: 4/9/17 PERIOD: 4 TOTAL NO. OF CLASS 55 UNIT: V

* Test Defect Metrics
  * 5 classes of defects
  * Defect priority
* Productivity Metrics
  - defects/100 hrs. of testing
  - test cases executed/100 hrs. of testing
  - test cases developed/100 hrs. of testing
  - defects/100 failed test cases

DATE: 6/9/17 PERIOD: 8, 9 TOTAL NO. OF CLASS 57 UNIT: Revision

Revision on Unit III & Unit IV
- Levels of Testing
- System Testing & Types

Sign of HOD with Date

SUMMARY OF CLASS WORK

DATE: 16/9/17 PERIOD: 1,9 TOTAL NO. OF CLASS 59 UNIT : Revision

Revision on Unit V

* Automation and its scope
* Challenges of automation

DATE: 19/9/17 PERIOD: 2 TOTAL NO. OF CLASS 60 UNIT : Revision

Discussion on Cycle Test Questions from Unit I & II

DATE: 20/9/17 PERIOD: 8,9 TOTAL NO. OF CLASS 62 UNIT : Revision

Discussion on Unit Test I & II Questions from Unit I & III

Sign of HOD with Date

RESULT ANALYSIS

Model - I **Date of Exam :** 28/7/17

				ReTest - 4/8/17
1.	Total No. of Students	:	49	49
2.	No. of Students attended	:	49	49
3.	No. of Students passed	:	19	49
4.	Percentage of Pass	:	38.78 %	100 %
5.	Result Analysis	:		

Range of Mark	0 - 44		45 - 59		60 - 74		75 - 89		90 - 100	
No. of Students	30	-	11	13	5	31	3	5	-	-

Signature of the Staff : Sign

Name : C. J. Raman

Date : 31/7/17

Signature of the HOD of the Concerned Department : A-Jethalia
(After distributing the answer scripts)

RESULT ANALYSIS

Model - II **Date of Exam :** 15/9/17

			Retest - 21/9/17
1.	Total No. of Students	: 49	49
2.	No. of Students attended	: 49	49
3.	No. of Students passed	: 13	32
4.	Percentage of Pass	: 26.53%	65.3%
5.	Result Analysis	:	

Range of Mark	0-44		45-59		60-74		75-89		90-100	
No. of Students	36	17	4	10	8	21	1	01	-	-

Signature of the Staff :

Name : C. J. Raman

Date : 22/9/17

Signature of the HOD of the Concerned Department :
(After distributing the answer scripts)

RESULT ANALYSIS

Model - III **Date of Exam :** 7/10/17

				Retest - 13/10/17
1.	Total No. of Students	:	49	49
2.	No. of Students attended	:	49	49
3.	No. of Students passed	:	42	47
4.	Percentage of Pass	:	85.71%.	95.92%.
5.	Result Analysis	:		

Range of Mark	0 - 44		45 - 59		60 - 74		75 - 89		90 - 100
No. of Students	09	02	11	15	24	27	05	05	—

Signature of the Staff :

Name : C. J. Raman

Date : 9/10/17

Signature of the HOD of the Concerned Department :
(After distributing the answer scripts)