



# Information Science and Engineering (IS)

Course Name: SOFTWARE TESTING (15IS63)

Class: Semester 6 A

Mr Sudarshana K, Assistant Professor, 2017-18

### **Department of Information Science and Engineering (IS)**

### 1. Faculty Details

Name : Mr Sudarshana K

**Qualification** : BE, M.Tech

**Department** : IS

Permanent Address : 3/16 Bhujanga Nagara, Sandur, 583119, India

**Phone Number** : 9986223053

**Email ID** : sk5353@aiet.org.in

Specimen Signature : \_\_\_\_\_



# **Department of Information Science and Engineering (IS)**

### 2. Course Allotted

| Allotted Duty | Course Title     | Course Code |
|---------------|------------------|-------------|
| Theory 1      | SOFTWARE TESTING | 15IS63      |



# **Department of Information Science and Engineering (IS)**

# 3 . Academic calendar 2017-18 (Semester 6)

| Date        | Day       | Event   |
|-------------|-----------|---|
| 4 Feb 2018  | SUNDAY    | Term End Date   |
| 8 Feb 2018  | THURSDAY  | Project Evaluation – Phase-II                         |
| 9 Feb 2018  | FRIDAY    | Project Evaluation – Phase-II                         |
| 5 Mar 2018  | MONDAY    | I-IA Test for I-Year BE                               |
| 6 Mar 2018  | TUESDAY   | I-IA Test for I-Year BE                               |
| 7 Mar 2018  | WEDNESDAY | I-IA Test for I-Year BE                               |
| 8 Mar 2018  | THURSDAY  | Project Evaluation – Phase-III                        |
| 9 Mar 2018  | FRIDAY    | Project Evaluation – Phase-III                        |
| 26 Mar 2018 | MONDAY    | I-IA Test for II, III & IV Year BE                    |
| 27 Mar 2018 | TUESDAY   | I-IA Test for II, III & IV Year BE                    |
| 28 Mar 2018 | WEDNESDAY | I-IA Test for II, III & IV Year BE                    |
| 5 Apr 2018  | THURSDAY  | Final Project Evaluation                              |
| 6 Apr 2018  | FRIDAY    | Final Project Evaluation                              |
| 10 Apr 2018 | TUESDAY   | Last date for Draft copy of Project Report Submission |
| 11 Apr 2018 | WEDNESDAY | II-IA Test for I-Year BE                              |
| 12 Apr 2018 | THURSDAY  | II-IA Test for I-Year BE                              |
| 13 Apr 2018 | FRIDAY    | II-IA Test for I-Year BE                              |
| 20 Apr 2018 | FRIDAY    | Final Year BE Project Exhibition                      |
| 26 Apr 2018 | THURSDAY  | II-IA Test for II, III & IV Year BE                   |
| 27 Apr 2018 | FRIDAY    | II-IA Test for II, III & IV Year BE                   |
| 28 Apr 2018 | SATURDAY  | II-IA Test for II, III & IV Year BE                   |
| 30 Apr 2018 | MONDAY    | Last date for Final Project Report Submission         |
| 17 May 2018 | THURSDAY  | III-IA Test for I, II, III & IV Year BE               |



| Date        | Day       | Event                                   |
|-------------|-----------|---|
| 18 May 2018 | FRIDAY    | III-IA Test for I, II, III & IV Year BE |
| 19 May 2018 | SATURDAY  | III-IA Test for I, II, III & IV Year BE |
| 22 May 2018 | TUESDAY   | III Year BE - Mini Project Exhibition   |
| 23 May 2018 | WEDNESDAY | Last Working Day of EVEN Semester BE    |
| 26 Jul 2018 | THURSDAY  | Term not found                          |



# **Department of Information Science and Engineering (IS)**

### 4. Timetable

|     | 1                                     | 2                    | 3                                     | 4                                     |                      | 5                                      | 6                    | 7                    |
|-----|---------------------------------------|----------------------|---------------------------------------|---------------------------------------|----------------------|--|----------------------|----------------------|
|     | 09:00 AM<br>09:55 AM                  | 09:55 AM<br>10:50 AM | 11:10 AM<br>12:05 PM                  | 12:05 PM<br>01:00 PM                  | 01:00 PM<br>02:00 PM | 02:00 PM<br>03:00 PM                   | 03:00 PM<br>04:00 PM | 04:00 PM<br>05:00 PM |
| MON |                                       |                      |                                       | BE<br>15IS63<br>IS<br>Semester 6<br>A |                      |  |                      |                      |
| TUE | BE<br>15IS63<br>IS<br>Semester 6<br>A |                      |                                       |                                       |                      | BE<br>15ISL68<br>IS<br>Semester 6<br>A |                      |                      |
| WED |                                       |                      | BE<br>15IS63<br>IS<br>Semester 6<br>A |                                       |                      |  |                      |                      |
| THU | BE<br>15IS63<br>IS<br>Semester 6<br>A |                      |                                       |                                       |                      | BE<br>15ISL67<br>IS<br>Semester 6<br>A |                      |                      |
| FRI |                                       |                      | BE<br>15IS63<br>IS<br>Semester 6<br>A |                                       |                      |  |                      |                      |
| SAT |                                       |                      |                                       |                                       |                      |  |                      |                      |

### **Department of Information Science and Engineering (IS)**

### 5. Department Details

### 5.1 Preliminary Information

#### THE VISION

To Impart quality learning and nurture students to become successful technocrats by achieving excellence in information science and engineering field for addressing the evolving needs of the industry as well as the society.;

#### THE MISSION

- 1. To provide quality technical education and research training for preparing competent professionals in the Information technology field.
- 2. To provide the suitable infrastructure and environment that inculcates best engineering practices for the Socio-economic development of the society
- 3. To foster the students to become successful technocrats to meet the global competency in the field of IT industry.

#### PROGRAM EDUCATIONAL OBJECTIVES

- **Peo 1:** Apply the principles of Information Science & engineering and fundamentals of mathematics to provide solutions to the societal needs.
- **Peo 2 :** Pursue higher education and engage in research to meet the challenges of the cutting edge technologies.
- **Peo 3 :** Design and develop reliable software systems to satisfy the industrial needs through multidisciplinary projects
- **Peo 4:** Able to work in various IT related fields and contribute to the society.

### **PROGRAM OUTCOMES(PO's)**

- 1. **Engineering knowledge :** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems
- 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
- 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
- 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



### **Department of Information Science and Engineering (IS)**

- 5. **Modern tool usage :** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations
- 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
- 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
- 8. **Ethics :** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
- 9. **Individual and team work :** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings
- 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
- 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
- 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

### PROGRAM SPECIFIC OUTCOMES(PSO's)

- **PSO 2:** Design, Develop, Test and maintain the software systems that satisfy the needs of the IT industry.
- **PSO 3 :** Develop programs and projects using different modern software tools for industrial & scientific applications.
- **PSO 1:** Apply the knowledge of computer networking, database and computations to provide the solutions to the real-world engineering problems.



### **Department of Information Science and Engineering (IS)**

### 6. Course Information

### 6.1 Course Content

**Title of the Course**: SOFTWARE TESTING

Semester: 6 Academic Year: 2017-18

| Subject Code: 15IS63                  | IA Marks : 20   |
|---------------------------------------|---|
| Hours/week: 4                         | Total Hours: 50                                       |
| Exam Hours: 3                         | Exam Marks: 80  |
| Course Plan Author : Sudarshana       | Planned Date : -                                      |
| Checked by : Jayantkumar Arjun Rathod | At the end of this course student will be able to : - |

### **Objectives: To enable students**

- 1 . Differentiate the various testing techniques
- 2 . Analyze the problem and derive suitable test cases
- 3. Apply suitable technique for designing of flow graph
- 4. Explain the need for planning and monitoring a process

### **Course Outcomes (COs):**

- 1 . Derive test cases for any given problem
- 2 . Compare the different testing techniques
- 3. Classify the problem into suitable testing model
- 4. Apply the appropriate technique for the design of flow graph
- 5 . Create appropriate document for the software artefact



### **Department of Information Science and Engineering (IS)**

### 6. Course Information

### 6.1.1 Course Syllabus

Objectives: To enable students Title of the Subject Code: 15IS63

**Course:** SOFTWARE TESTING

#### Module 1

Basics of Software Testing:

Basic definitions, Software Quality, Requirements, Behaviour and Correctness, Correctness versus Reliability, Testing and Debugging, Test cases, Insights from a Venn diagram, Identifying test cases, Test-generation Strategies, Test Metrics, Error and fault taxonomies, Levels of testing, Testing and Verification, Static Testing

**Problem Statements:** 

Generalized pseudocode, the triangle problem, the NextDate function, the commission problem, the SATM (Simple Automatic Teller Machine) problem, the currency converter, Saturn windshield wiper

#### Module 2

#### Functional Testing:

Boundary value analysis, Robustness testing, Worst-case testing, Robust Worst testing for triangle problem, Nextdate problem and commission problem, Equivalence classes, Equivalence test cases for the triangle problem, NextDate function, and the commission problem, Guidelines and observations, Decision tables, Test cases for the triangle problem, NextDate function, and the commission problem, Guidelines and observations

#### Based Testing:

Overview, Assumptions in fault based testing, Mutation analysis, Fault-based adequacy criteria, Variations on mutation analysis

### Module 3

#### Structural Testing:

Overview, Statement testing, Branch testing, Condition testing, Path testing: DD paths, Test coverage metrics, Basis path testing, guidelines and observations, Data –Flow testing: Definition-Use testing, Slicebased testing, Guidelines and observations

#### Test Execution:

Overview of test execution, from test case specification to test cases, Scaffolding, Generic versus specific scaffolding, Test oracles, Self-checks as oracles, Capture and replay

### **Department of Information Science and Engineering (IS)**

#### Module 4

Process Framework:

Basic principles: Sensitivity, redundancy, restriction, partition, visibility, Feedback, the quality process, Planning and monitoring, Quality goals, Dependability properties, Analysis Testing, Improving the process, Organizational factors

Planning and Monitoring the Process:

Quality and process, Test and analysis strategies and plans, Risk planning, monitoring the process, Improving the process, the quality team

Documenting Analysis and Test:

Organizing documents, Test strategy document, Analysis and test plan, Test design specifications documents, Test and analysis reports

#### Module 5

Integration and Component-Based Software Testing:

Overview, Integration testing strategies, Testing components and assemblies, System, Acceptance and Regression Testing: Overview, System testing, Acceptance testing, Usability, Regression testing, Regression test selection techniques, Test case prioritization and selective execution

Levels of Testing, Integration Testing:

Traditional view of testing levels, Alternative life-cycle models, The SATM system, Separating integration and system testing, A closer look at the SATM system, Decomposition-based, call graph-based, Path-based integrations



### **Department of Information Science and Engineering (IS)**

#### 6. Course Information

#### 6.1.2 Text Books and Reference Books

#### **TEXT BOOKS:**

- 1 . Paul C. Jorgensen: Software Testing, A Craftsman's Approach, 3rd Edition, Auerbach Publications, 2008. (Listed topics only from Chapters 1, 2, 5, 6, 7, 9, 10, 12, 13)
- 2. Mauro Pezze, Michal Young: Software Testing and Analysis Process, Principles and Techniques, Wiley India, 2009. (Listed topics only from Chapters 3, 4, 16, 17, 20,21, 22,24)
- 3 . Aditya P Mathur: Foundations of Software Testing, Pearson Education, 2008.( Listed topics only from Section 1.2, 1.3, 1.4, 1.5, 1.8,1.12,6. 2.1,6. 2.4)

#### **REFERENCE BOOKS:**

- 1 . Software Testing Ron Patton, 2nd edition, Pearson Education, 2004.
- 2. The Craft of Software Testing Brian Marrick, Pearson Education, 1995.
- 3. Anirban Basu, Software Quality Assurance, Testing and Metrics, PHI, 2015.
- 4 . Naresh Chauhan, Software Testing, Oxford University press.

# ALVA'S

# **ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY**

# **Department of Information Science and Engineering (IS)**

### **6** . Course Information

### 6.2

Semester: 6 Section: A Course: SOFTWARE TESTING

| Р                     |            | Planned   |   | Execution  |  |   |  |
|-----------------------|------------|---|---|------------|--|---|--|
| e<br>r<br>i<br>o<br>d | Date       | Topic   | Source<br>material<br>to be<br>referred | Date       | Topic  | Source<br>material<br>to be<br>referred |  |
|                       |            |   | 1                                       |            |  |   |  |
| 1                     | 2018-02-05 | Basic definitions, Software Quality   | -                                       | 2018-02-05 | Basic definitions, Software Quality  | Text 1,<br>Text 3,                      |  |
| 2                     | 2018-02-06 | Requirements, Behaviour and Correctness, Correctness versus Reliability   | -                                       | 2018-02-06 | Requirements, Behaviour and Correctness, Correctness versus Reliability                          | Text 3                                  |  |
| 3                     | 2018-02-07 | Testing andDebugging, Test cases  | -                                       | 2018-02-07 | Testing andDebugging, Test cases, Correctness versus Reliability                                 | Text 3                                  |  |
| 4                     | 2018-02-08 | Insights from a Venn diagram, Identifying test cases  | -                                       | 2018-02-08 | Testing andDebugging, Test cases   | Text 3                                  |  |
| 5                     | 2018-02-12 | Test-generation Strategies, Test Metrics, Error and fault taxonomies  | -                                       | 2018-02-09 | Insights from a Venn diagram, Identifying test cases   | Text 1                                  |  |
| 6                     | 2018-02-14 | Static Testing, Testing and Verification  | -                                       | 2018-02-14 | Test-generation Strategies, Test Metrics, Error and fault taxonomies                             | Text 1                                  |  |
| 7                     | 2018-02-15 | Testing and Verification,<br>Static Testing   | -                                       | 2018-02-15 | Static Testing, Testing and Verification   | Text 3                                  |  |
| 8                     | 2018-02-19 | Generalized pseudocode, the triangle problem  | -                                       | 2018-02-15 | Testing and Verification,<br>Static Testing  | Text 1                                  |  |
| 9                     | 2018-02-20 | the NextDate function, thecommission problem  | -                                       | 2018-02-19 | Generalized pseudocode, the triangle problem   | Text 1                                  |  |
| 10                    | 2018-02-21 | the SATM (Simple<br>Automatic Teller Machine)<br>problem, the currency<br>converter, Saturn<br>windshield wiper | -                                       | 2018-02-20 | the NextDate function, thecommission problem   | Text 1                                  |  |
| 56                    | 2018-05-22 | Basic definitions   | -                                       | 2018-05-08 | Traditionalview of testing levels  | Text 1                                  |  |
| 57                    | 2018-05-23 | Generalized pseudocode  | -                                       | 2018-05-10 | Basic principles:<br>Sensitivity, restriction,<br>redundancy, partition,<br>visibility, Feedback | Text 2                                  |  |



| 58 | 2018-05-24 | the triangle problem,<br>the NextDate function,<br>thecommission problem   | Text 1 | 2018-05-15 | Quality and process, Test and analysisstrategies and plans  | Text 2 |
|----|------------|--|--------|------------|---|--------|
|    |            |  | 2      |            |   |        |
| 11 | 2018-02-22 | Boundary value analysis,<br>Robustness testing, Worst-<br>casetesting, Robust Worst<br>testing for triangle problem            | -      | 2018-02-21 | the SATM (Simple Automatic Teller Machine) problem, the currency converter, Saturn windshield wiper                     | Text 1 |
| 12 | 2018-02-26 | Nextdate problem<br>andcommission problem,<br>Equivalence classes,<br>Equivalence test cases for<br>the triangleproblem        | -      | 2018-02-22 | Boundary value analysis,<br>Robustness testing, Worst-<br>casetesting, Robust Worst<br>testing for triangle problem     | Text 1 |
| 13 | 2018-02-27 | Equivalence test cases<br>for the triangleproblem,<br>NextDate function, and the<br>commission problem                         | -      | 2018-02-26 | Nextdate problem<br>andcommission problem,<br>Equivalence classes,<br>Equivalence test cases for<br>the triangleproblem | Text 1 |
| 14 | 2018-02-28 | Guidelines and observations,<br>Decision tables, Test cases<br>for the triangle problem  | -      | 2018-02-27 | Equivalence test cases for the triangleproblem, NextDate function, and the commission problem                           | Text 1 |
| 15 | 2018-03-01 | Test cases for the triangle problem, NextDatefunction, and the commission problem  | -      | 2018-02-28 | Guidelines and observations, Decision tables, Test cases for the triangle problem                                       | Text 1 |
| 16 | 2018-03-02 | NextDatefunction, and<br>the commission problem,<br>Guidelines and observations  | -      | 2018-03-01 | Test cases for the triangle problem, NextDatefunction, and the commission problem                                       | Text 1 |
| 17 | 2018-03-05 | Overview, Assumptions in fault based testing, Mutation analysis  | -      | 2018-03-02 | Boundary value analysis, Equivalence classes, Decision tables   | Text 1 |
| 18 | 2018-03-06 | Basis path testing, Fault-<br>based adequacy criteria  | -      | 2018-03-05 | Assumptions in fault based testing, Mutation analysis   | Text 2 |
| 19 | 2018-03-07 | Variations on mutation analysis  | -      | 2018-03-06 | Fault-based adequacy<br>criteria, Variations on<br>mutation analysis  | Text 2 |
| 20 | 2018-03-08 | Overview, Assumptions in fault based testing, Mutation analysis, Faultbased adequacy criteria, Variations on mutation analysis | Text 1 | 2018-03-07 | Overview  | Text 2 |
| 55 | 2018-05-21 | Boundary value analysis,<br>Equivalence classes,<br>Decision tables  | -      | 2018-05-07 | Overview  | Text 2 |



| 59       | 2018-05-24 | Worst-casetesting, Robustness testing, Boundary value analysis | Text 1 | 2018-05-16 | Overview                             | Text 1       |
|----------|------------|--|--------|------------|--------------------------------------|--------------|
|          |            | Boundary value analysis  | 2      |            |                                      |              |
|          |            |  | 3      |            |                                      |              |
| 26       | 2018-03-19 | Overview of testexecution,                                     | -      | 2018-03-13 | Test coverage metrics,               | Text 1,      |
|          |            | from test case specification                                   |        |            | Basis path testing                   | Text 3,      |
|          |            | to test cases  |        |            |                                      | Text 2,      |
| 27       | 2018-03-20 | Scaffolding, Generic   | -      | 2018-03-14 | guidelines and observations,         | -            |
|          |            | versusspecific scaffolding,                                    |        |            | Data –Flow testing:                  |              |
|          |            | Test oracles, Self-checks as                                   |        |            | Definition-Use testing               |              |
| 20       | 2019 02 21 | oracles  |        | 2010 02 16 |                                      | <b>m</b> . 1 |
| 28       | 2018-03-21 | Capture and  | -      | 2018-03-16 | Slicebasedtesting,                   | Text 1       |
| 20       | 2018-03-22 | replayT3:Section 6   |        | 2019 02 10 | Guidelines and observations          | TD + 1       |
| 29       | 2018-03-22 | Capture and  | -      | 2018-03-19 | Overview of testexecution,           | Text 1,      |
|          |            | replayT3:Section 6   |        |            | from test case specification         | Text 2,      |
| <u> </u> | 2018-05-16 |  |        | 2018-05-03 | to test cases                        | Text 3,      |
| 54       | 2018-03-10 | Overview   | -      | 2018-03-03 | Decomposition-based                  | Text 1       |
|          |            |  | 4      |            |                                      |              |
| 21       | 2018-03-09 | Basic principles: Sensitivity                                  | Text 2 | 2018-03-08 | Overview, Assumptions                | Text 2       |
|          |            |  |        |            | in fault based testing,              |              |
|          |            |  |        |            | Mutation analysis, Fault-            |              |
|          |            |  |        |            | based adequacy criteria,             |              |
|          |            |  |        |            | Variations on mutation               |              |
|          |            |  |        |            | analysis                             |              |
| 22       | 2018-03-12 | the quality process,   | Text 2 | 2018-03-08 | Overview, Assumptions                | Text 2       |
|          |            | Planning and monitoring  |        |            | in fault based testing,              |              |
|          |            |  |        |            | Mutation analysis, Fault-            |              |
|          |            |  |        |            | based adequacy criteria,             |              |
|          |            |  |        |            | Variations on mutation               |              |
|          |            |  |        |            | analysis                             |              |
| 23       | 2018-03-13 | Quality and process, Test                                      | Text 2 | 2018-03-08 | Overview, Assumptions                | Text 2       |
|          |            | and analysisstrategies and                                     |        |            | in fault based testing,              |              |
|          |            | plans  |        |            | Mutation analysis, Fault-            |              |
|          |            |  |        |            | based adequacy criteria,             |              |
|          |            |  |        |            | Variations on mutation               |              |
|          | 2010.02.14 |  |        | 2010 02 00 | analysis                             |              |
| 24       | 2018-03-14 | Test and analysisstrategies                                    | Text 2 | 2018-03-09 | Overview, Statement                  | Text 1,      |
| 25       | 2018-03-15 | and plans  | T 2    | 2018-03-12 | testing, Branch testing              | Text 3,      |
| 25       | 2018-03-15 | Test and analysisstrategies                                    | Text 2 | 2018-03-12 | Conditiontesting, Path               | Text 1,      |
| 20       | 2018-03-22 | and plans  |        | 2018-03-20 | testing: DD paths                    | Text 3,      |
| 30       | 2010-03-22 | Basic principles:  | _      | 2010-03-20 | Scaffolding, Generic                 | Text 2       |
|          |            | Sensitivity, redundancy,                                       |        |            | versusspecific scaffolding,          |              |
|          |            | restriction  |        |            | Test oracles, Self-checks as oracles |              |
| 0.1      | 2018-03-23 | vicibility Egodbook the  |        | 2018-03-21 | Capture and                          | Text 2       |
| '2 I     | 2010-03-23 | visibility, Feedback, the                                      | -      | 2010-03-21 | -                                    | 1 ext 2      |
| 31       |            | quality process  |        |            | raplayT3. Section 6                  |              |
| 31       | 2018-04-02 | quality process Planning and monitoring,                       | _      | 2018-03-22 | replayT3:Section 6 Capture and       | Text 2       |



| 33 | 2018-04-03 | Dependability properties,<br>Analysis Testing   | -      | 2018-03-22 | Basic principles: Sensitivity, redundancy, restriction                                 | Text 2 |
|----|------------|---|--------|------------|--|--------|
| 34 | 2018-04-04 | Quality and process, Test and analysisstrategies and plans  | -      | 2018-03-23 | visibility, Feedback, the quality process  | -      |
| 35 | 2018-04-05 | Risk planning, monitoring the process   | -      | 2018-04-02 | Planning and monitoring,<br>Quality goals  | -      |
| 36 | 2018-04-09 | Improving the process, the quality team   | -      | 2018-04-03 | Dependability properties,<br>Analysis Testing  | -      |
| 37 | 2018-04-10 | the quality team, Organizing documents  | -      | 2018-04-04 | Quality and process, Test and analysisstrategies and plans                             | -      |
| 38 | 2018-04-11 | Test strategydocument,<br>Analysis and test plan  | -      | 2018-04-05 | Risk planning, monitoring the process  | -      |
| 39 | 2018-04-12 | Analysis and test plan, Test design specifications documents, Test andanalysis reports                    | -      | 2018-04-10 | Risk planning, monitoring the process  | -      |
| 52 | 2018-05-10 | Basic principles: Sensitivity, restriction, redundancy, partition, visibility, Feedback                   | -      | 2018-04-30 | The SATM system  | Text 1 |
| 53 | 2018-05-15 | Quality and process, Test and analysisstrategies and plans  | -      | 2018-05-02 | Separating integration and system testing, A closer look at the SATM system            | Text 1 |
| 60 | 2018-05-25 | Basic principles: Sensitivity   | -      | 2018-05-21 | Boundary value analysis,<br>Equivalence classes,<br>Decision tables                    | Text 1 |
|    |            |   | 5      |            |  |        |
| 40 | 2018-04-16 | Traditionalview of testing levels, Alternative life-cycle models  | _      | 2018-04-10 | Improving the process, the quality team  | -      |
| 41 | 2018-04-17 | The SATM system,<br>Separating integration and<br>system testing, A closer<br>look at the SATM system     | -      | 2018-04-11 | the quality team, Organizing documents   | Text 2 |
| 42 | 2018-04-18 | Acceptance and Regression<br>Testing: Overview, System<br>testing, Acceptance testing,<br>Usability       | Text 1 | 2018-04-12 | Test strategydocument,<br>Analysis and test plan                                       | Text 2 |
| 43 | 2018-04-19 | Path-based integrations   | Text 1 | 2018-04-12 | Analysis and test plan, Test design specifications documents, Test andanalysis reports | Text 2 |
| 44 | 2018-04-23 | Regression testing, Regression test selection techniques, Test case prioritizationand selective execution | Text 1 | 2018-04-13 | Analysis and test plan, Test design specifications documents, Test andanalysis reports | Text 2 |



| 45 | 2018-04-24 | Test case prioritization and   | -       | 2018-04-18 | Traditionalview of testing     | -       |
|----|------------|--------------------------------|---------|------------|--------------------------------|---------|
|    |            | selective execution            |         |            | levels, Alternative life-cycle |         |
|    |            |                                |         |            | models                         |         |
| 46 | 2018-04-25 | Traditionalview of testing     | Text 1, | 2018-04-17 | The SATM system,               | -       |
|    |            | levels, Alternative life-cycle | Text 2, |            | Separating integration and     |         |
|    |            | models                         |         |            | system testing, A closer       |         |
|    |            |                                |         |            | look at the SATM system        |         |
| 47 | 2018-04-30 | The SATM system,               | Text 2  | 2018-04-18 | Acceptance and Regression      | Text 1  |
|    |            | Separating integration and     |         |            | Testing: Overview, System      |         |
|    |            | system testing                 |         |            | testing, Acceptance testing,   |         |
|    |            |                                |         |            | Usability                      |         |
| 48 | 2018-05-02 | Separating integration and     | Text 2  | 2018-04-19 | Path-based integrations        | Text 1, |
|    |            | system testing, A closer       |         |            |                                | Text 2, |
|    |            | look at the SATM system,       |         |            |                                |         |
|    |            | Decomposition-based            |         |            |                                |         |
| 49 | 2018-05-03 | call graph-based, Path-        | -       | 2018-04-23 | Regression testing             | Text 1, |
|    |            | based integrations             |         |            |                                | Text 2, |
| 50 | 2018-05-07 | Overview                       | -       | 2018-04-24 | Regression test selection      | Text 2, |
|    |            |                                |         |            | techniques, Test case          | Text 1, |
|    |            |                                |         |            | prioritizationand selective    |         |
|    |            |                                |         |            | execution                      |         |
| 51 | 2018-05-08 | Traditionalview of testing     | -       | 2018-04-25 | Traditionalview of testing     | Text 1, |
|    |            | levels                         |         |            | levels, Alternative life-cycle | Text 2, |
|    |            |                                |         |            | models                         |         |
| 61 | -          | -                              |         | 2018-05-22 | Basic definitions              | Text 2, |
|    |            |                                |         |            |                                | Text 1, |
|    |            |                                |         |            |                                | Text 3, |
| 62 | -          | -                              |         | 2018-05-23 | Generalized pseudocode         | Text 1  |



## **Department of Information Science and Engineering (IS)**

### **6** . Course Information

### 6.2.1 Compliance Report

Semester: 6 Section: A Course: SOFTWARE TESTING

| Module<br>No. | # of Classes<br>Planned(till<br>date) | Planned<br>Effort(till date) | # of Classes<br>Executed(till<br>date) | Actual<br>Efforts(till<br>date) | %<br>Coverage |
|---------------|---------------------------------------|------------------------------|--|---------------------------------|---------------|
| 1             | 13                                    | 13hrs 0min                   | 13                                     | 13hrs 0min                      | 100.0         |
| 2             | 13                                    | 13hrs 0min                   | 13                                     | 14hrs 0min                      | 107.69        |
| 3             | 10                                    | 10hrs 0min                   | 10                                     | 10hrs 0min                      | 100.0         |
| 4             | 14                                    | 14hrs 0min                   | 14                                     | 14hrs 0min                      | 100.0         |
| 5             | 12                                    | 12hrs 0min                   | 12                                     | 12hrs 0min                      | 100.0         |



### **Department of Information Science and Engineering (IS)**

### **6** . Course Information

### 6.2.2 CO PO Mapping

Slight (Low) = 1,

Moderate (Medium) = 2,

Substantial (High) = 3.

| CO/<br>PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|-----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| CO 1      | 3    | 3    | 3    | 1    | 1    | 1    | 1    | 1    | 2    | 3     | 1     | 3     |
| CO 2      | 3    | 3    | 3    | 2    |      |      |      | 2    | 1    | 3     |       | 2     |
| CO 3      | 3    | 3    | 3    | 1    |      |      |      |      |      |       |       | 2     |
| CO 4      | 3    | 3    | 3    | 2    |      |      |      |      | 2    | 1     | 1     | 2     |
| CO 5      | 2    | 2    | 2    | 1    |      | 2    |      |      |      | 3     | 2     | 2     |



## **Department of Information Science and Engineering (IS)**

### 6. Course

### 6.2.3 CO-PSO Mapping

Slight (Low) = 1,

Moderate (Medium) = 2,

Substantial (High) = 3.

| CO/PSO | PSO 1 | PSO 2 | PSO 3 | PSO 4 |
|--------|-------|-------|-------|-------|
| CO 1   | 3     | 3     | 3     |       |
| CO 2   | 2     | 3     | 3     |       |
| CO 3   | 2     | 3     | 3     |       |
| CO 4   | 3     | 3     | 3     |       |
| CO 5   | 1     | 2     | 3     |       |

### **Department of Information Science and Engineering (IS)**

### 6. Course Information

#### 6.3 Other Assessment

#### **ASSIGNMENT**

: SOFTWARE TESTING : 15IS63

**#:** 1 **:** 5

**:** 2018-05-07 **:** 2018-05-14

: 3, 2, 1 : Apply

: Write a note

### **UNIT TEST**

: SOFTWARE TESTING : 15IS63

**Unit Test #:** 1 : 5

**Unit Test Date:** 2018-03-23 : 4

: Evaluate

1 Which of the following is / are the Review Technique documented? 2 A retail company purchased commercial off the shelf application for automating their billing process.

But before introducing it on large scale they are going for beta testing .What will be the reason for doing this? \* 3 Who is responsible for Component Testing? \* 4 What is the order in which test levels are performed? \* 5 Which things are measured by Software

Test Effectiveness? \*



|   | SOFTWARE TESTING 1  |         |
|---|---|---------|
| , | *Required   |         |
|   | Testing Types and Levels  |         |
|   | Which of the following is / are the Review Technique documented? *  | 1 point |
| 1 | Inspection  |         |
| ١ | walkthrough   |         |
| 1 | Both of These   |         |
| ١ | ☐ None of these   |         |
|   | A retail company purchased commercial off the shelf application for automating their billing process. But before introducing it on large scale they are going for beta testing .What will be the reason for doing this? * | 1 point |
|   | a. To nd defects  |         |
| 1 | b. To train employees   |         |
| 1 | c. To gain con dence in system  |         |
|   | d. All of the above   |         |



| 3/28/201   | 8 SOFTWARE TESTING 1  |     |
|------------|---|-----|
|            | Who is responsible for Component Testing? * 1 point   |     |
|            | a. Software tester  |     |
|            | b. Designer   |     |
|            | c. User   |     |
|            | d. Developer  |     |
|            | What is the order in which test levels are performed? * 1 point   |     |
|            | a. Unit, Integration, System, Acceptance  |     |
|            | b. Unit, System, Integration, Acceptance  |     |
|            | c. Unit, Integration, Acceptance, System  |     |
|            | d. It depends on nature of a project  |     |
|            | Which things are measured by Software Test Effectiveness? * 1 point  a. How many customer requirements are implemented in system?  b. How well the customer speci cations are achieved by the system?  c. How much effort is put in developing the system?  d. All of the above |     |
|            | This form was created inside Alva's Institute of Engineering & Technology. Report Abuse - Terms of Service - Additional Terms   |     |
|            | Google Forms  |     |
| https://do | ocs.google.com/forms/d/e/1FAlpQLSdMiWIN_6sDMOKHldnbHWg_WSMox3kdkAMiHzGtWxzU8rqVrA/formResponse  | 2/3 |



| 3/28/2018   | SOFTWARE TESTING 1                        |     |
|---|---|-----|
|   |   |     |
|   |   |     |
|   |   |     |
| <b>FI</b>   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
|   |   |     |
| https://docs.google.com/forms/d/e/1FAlpQLSdMiWIN_6sDMOKHIdnbHWg | g_WSMox3kdkAMiHzGtWxzU8rqVrA/formResponse | 3/3 |





| USN        | Name                               | Assignment 1 | Unit Test 1 |
|------------|------------------------------------|--------------|-------------|
| 4AL15IS001 | Aishwarya J Shetty                 | 5            | 5           |
| 4AL15IS006 | Anvaya Kini                        | 5            | 0 (Absent)  |
| 4AL15IS007 | Chandan Ramesh Shastri             | 5            | 5           |
| 4AL15IS008 | Deepashree V                       | 5            | 0 (Absent)  |
| 4AL15IS009 | Ganesh Prasad E                    | 5            | 0 (Absent)  |
| 4AL15IS011 | Harshitha K O                      | 5            | 5           |
| 4AL15IS012 | Kavana M G                         | 5            | 5           |
| 4AL15IS015 | Minal Pinto                        | 5            | 5           |
| 4AL15IS016 | K J MYTHRI                         | 5            | 5           |
| 4AL15IS017 | Nikshitha                          | 5            | 5           |
| 4AL15IS018 | Nisha                              | 5            | 5           |
| 4AL15IS020 | Pavan Kumar M R                    | 5            | 5           |
| 4AL15IS022 | Pooja                              | 5            | 5           |
| 4AL15IS023 | Pooja Gangadhara Hegde             | 5            | 5           |
| 4AL15IS024 | Pooja R                            | 5            | 5           |
| 4AL15IS025 | Pooja T S                          | 5            | 5           |
| 4AL15IS026 | Poojitha                           | 5            | 5           |
| 4AL15IS027 | Prajna M                           | 5            | 5           |
| 4AL15IS031 | Rachana S                          | 5            | 5           |
| 4AL15IS036 | Sameeksha Hegde                    | 5            | 5           |
| 4AL15IS038 | Shaziya Banu                       | 5            | 5           |
| 4AL15IS041 | Shetty Vignesh Suresh              | 5            | 5           |
| 4AL15IS043 | Srinivas S                         | 5            | 5           |
| 4AL15IS044 | Sukanaya Viruprakashi<br>Madiwalar | 5            | 5           |
| 4AL15IS045 | Sushmitha H S                      | 5            | 5           |
| 4AL15IS046 | Swarna Gowri R S                   | 5            | 5           |
| 4AL15IS047 | Thaizeera A S                      | 5            | 5           |
| 4AL15IS049 | Vishal Naik N                      | 5            | 5           |



| USN        | Name           | Assignment 1 | Unit Test 1 |
|------------|----------------|--------------|-------------|
| 4AL15IS050 | Vishwath Putti | 5            | 5           |



## **Department of Information Science and Engineering (IS)**

### **6** . Course Information

### 6.4 Internal Assessment

Internal: 1

Semester:6-CBCS Date: 26/03/2018

Subject: SOFTWARE TESTING (15IS63) Time: 09:30 - 11:00

Faculty : Sudarshana Max Marks: 30

|   |   | Answer Any 2 Questions  |     |   |    |
|---|---|---|-----|---|----|
| 1 | a | Build the terminologies for the software testing context.   | 7.5 | 5 | L3 |
| 1 | b | Compare the different test case generation techniques   | 7.5 | 3 | L4 |
|   |   | OR  |     |   |    |
| 2 | a | Build the for errors and faults terminologies.  | 7.5 | 5 | L3 |
| 2 | b | Compare the testing phases with respect to software development life cycles.                        | 7.5 | 3 | L4 |
|   |   |   |     |   |    |
| 3 | a | Build and evaluate the test cases for solving the Commission problem using Boundary value analysis. | 7.5 | 1 | L5 |
| 3 | b | Analyze the fault based testing.  | 7.5 | 2 | L4 |
|   |   | OR  |     |   |    |
| 4 | a | Justify the test cases for triangle problem using Decision table approach.                          | 7.5 | 1 | L5 |
| 4 | b | Compare various mutation analysis techniques.   | 7.5 | 2 | L4 |

|            |                           |    | Q   | 11  | Q   | 2   | c | Q3 Q4 |   | 14 |    |          |
|------------|---------------------------|----|-----|-----|-----|-----|---|-------|---|----|----|----------|
|            |                           |    | а   | b   | а   | b   | а | b     | а | b  |    |          |
| 4AL15IS001 | Aishwarya J Shetty        | Р  | 6.5 | 2.5 | 0   | 0   | 0 | 0     | 4 | 3  | 16 | Analyze  |
| 4AL15IS006 | Anvaya Kini               | Ab | 0   | 0   | 0   | 0   | 0 | 0     | 0 | 0  | 0  | No Level |
| 4AL15IS007 | Chandan Ramesh<br>Shastri | Р  | 1   | 2   | 0   | 0   | 0 | 0     | 4 | 3  | 10 | Analyze  |
| 4AL15IS008 | Deepashree V              | Ab | 0   | 0   | 0   | 0   | 0 | 0     | 0 | 0  | 0  | No Level |
| 4AL15IS009 | Ganesh Prasad E           | Ab | 0   | 0   | 0   | 0   | 0 | 0     | 0 | 0  | 0  | No Level |
| 4AL15IS011 | Harshitha K O             | Р  | 7   | 5   | 0   | 0   | 0 | 0     | 4 | 3  | 19 | Analyze  |
| 4AL15IS016 | K J MYTHRI                | Р  | 0   | 0   | 7.5 | 3.5 | 0 | 0     | 6 | 3  | 20 | Analyze  |
| 4AL15IS012 | Kavana M G                | Р  | 0   | 0   | 4   | 4   | 0 | 0     | 5 | 0  | 13 | Analyze  |



|            |                                       |   | Q1  |     | C | 2 | Q | Q3 Q |     | Q4  |    |         |
|------------|---------------------------------------|---|-----|-----|---|---|---|------|-----|-----|----|---------|
|            |                                       |   | а   | b   | а | b | а | b    | а   | b   |    |         |
| 4AL15IS015 | Minal Pinto                           | Р | 6   | 4   | 0 | 0 | 0 | 0    | 5.5 | 4.5 | 20 | Analyze |
| 4AL15IS017 | Nikshitha                             | Р | 7   | 0   | 7 | 7 | 0 | 0    | 6   | 3   | 23 | Analyze |
| 4AL15IS018 | Nisha                                 | Р | 7.5 | 2.5 | 4 | 0 | 0 | 0    | 3   | 4   | 17 | Analyze |
| 4AL15IS020 | Pavan Kumar M R                       | Р | 0   | 0   | 0 | 6 | 1 | 2    | 0   | 0   | 9  | Analyze |
| 4AL15IS022 | Pooja                                 | Р | 5.5 | 4.5 | 0 | 0 | 7 | 2    | 6   | 2   | 19 | Analyze |
| 4AL15IS023 | Pooja Gangadhara<br>Hegde             | Р | 7.5 | 3.5 | 0 | 0 | 5 | 5    | 0   | 0   | 21 | Analyze |
| 4AL15IS024 | Pooja R                               | Р | 6   | 4   | 0 | 0 | 6 | 3    | 0   | 0   | 19 | Analyze |
| 4AL15IS025 | Pooja T S                             | Р | 6   | 6   | 0 | 0 | 6 | 1    | 6   | 3   | 21 | Analyze |
| 4AL15IS026 | Poojitha                              | Р | 5   | 2   | 0 | 0 | 5 | 2    | 5   | 1   | 14 | Analyze |
| 4AL15IS027 | Prajna M                              | Р | 0   | 0   | 2 | 0 | 6 | 2    | 6   | 0   | 10 | Analyze |
| 4AL15IS031 | Rachana S                             | Р | 1   | 6   | 0 | 0 | 5 | 4    | 4   | 0   | 16 | Analyze |
| 4AL15IS036 | Sameeksha Hegde                       | Р | 0   | 0   | 2 | 7 | 0 | 0    | 6   | 2   | 17 | Analyze |
| 4AL15IS038 | Shaziya Banu                          | Р | 0   | 0   | 4 | 3 | 0 | 0    | 4   | 3   | 14 | Analyze |
| 4AL15IS041 | Shetty Vignesh<br>Suresh              | Р | 0   | 0   | 7 | 7 | 7 | 6    | 0   | 0   | 27 | Analyze |
| 4AL15IS043 | Srinivas S                            | Р | 0   | 0   | 2 | 4 | 0 | 0    | 4   | 3   | 13 | Analyze |
| 4AL15IS044 | Sukanaya<br>Viruprakashi<br>Madiwalar | Р | 0   | 0   | 3 | 0 | 0 | 0    | 6   | 4   | 13 | Analyze |
| 4AL15IS045 | Sushmitha H S                         | Р | 5   | 7   | 0 | 0 | 6 | 3    | 6   | 0   | 21 | Analyze |
| 4AL15IS046 | Swarna Gowri R S                      | Р | 6   | 5   | 6 | 6 | 5 | 3    | 5   | 0   | 20 | Analyze |
| 4AL15IS047 | Thaizeera A S                         | Р | 0   | 0   | 3 | 7 | 7 | 5    | 0   | 0   | 22 | Analyze |
| 4AL15IS049 | Vishal Naik N                         | Р | 0   | 0   | 2 | 6 | 3 | 3    | 0   | 0   | 14 | Analyze |
| 4AL15IS050 | Vishwath Putti                        | Р | 0   | 0   | 5 | 3 | 0 | 0    | 6   | 5   | 19 | Analyze |



# **Department of Information Science and Engineering (IS)**

### **Scheme of Evaluation**

| The state of the s |     |
|--|-----|
| Mulation Avalysis and Types:   | _   |
| >> MA is a common sur boar Joset based analytic Techni   |     |
| Is following on the three ma variations:   |     |
|  | 2.5 |
| or week mulcher Anough   |     |
| 3) Strong Mulation Avalytis<br>3) State Mulation Anolytis<br>3) State Mulation Anolytis  |     |
|  |     |
| Distroring Mulation Analysis;  |     |
| >MI in which we say mulable are talled lossed on op.   | I.  |
| > Requires targe number of mulants.  | -9  |
| > Raquines<br>* Large number q mulants.<br>* Large number q fest aus as scapeissed.  | -0( |
| >21's more acculiate mutation analysis.  |     |
| or Weak-Mulation Analysis:   |     |
| the a word of stone MA where en the neumber  |     |
| of the a variant of strong MA where in the neumber of mentions required in Addition but it lagritud does not reduced the time to decention and cost effects  |     |
| - Not reduce no y feet care beginned and cost offects  |     |
| 3) Static Mulation Analysis:  >MA can be used to estimate to the ordent to which a less cases distinguished the saided foretant with ongred program.   |     |
| property.  | 2   |
| >> Gegines Ill gumber of relations them  |     |
| > partial coverage of another unity  | •   |
| >> Gagines less number q topulants. >> Perfint coverage is another (imitation.   |     |
| > can be used to defermine Jestimale the number of rendi   |     |
|  | 1   |
| > can be used to defermine Jestimale the number of rendi   |     |
| > can be used to defermine Jestimale the number of rendi   |     |
| > can be used to defermine Jestimale the number of rendi   | 0.  |
| > can be used to defermine Jestimale the number of rendi   | 0.  |
| > can be used to defermine Jestimale the number of rendi   | 0.  |
| > can be used to defermine Jestimale the number of rendi   |     |
| > can be used to defermine Jestimale the number of rendi   | 0.  |
| > can be used to defermine Jestimale the number of rendi   | 10  |



| N        | ALVA'S I                                     | NSTI      | TUTE  |      | ENGIN<br>SOLUT |         | G & T  | ECHN  | OLOG.         | Y       |       |            | MARKS        |
|----------|--|-----------|-------|------|----------------|---------|--------|-------|---------------|---------|-------|------------|--------------|
|          | Fault Bosed To                               | +85       | ing:  |      | SOLUI          | ION     | 1      |       |               |         |       |            | MARCHO       |
|          | > Engineers study                            |           | -     | -1   | 1              |         |        |       | <del>t-</del> | Cin     | ulox  | doile      |              |
|          | 763  | J         |       |      |                |         | ,      |       |               |         |       | 1 14       | 1.0          |
| _        | product development.                         | 115       | مل    | ods  | 40             | -94     | proy   | reme  | nts           | في      | des   | ign and    | W 3          |
|          |  |           | mbe   | tent | 75             | YDGO    | mm)    | ex 1  | Mypo          | they    | قير آ |            | 0            |
| _        | > Assumptions: 1)                            | ) <       | night | ing  | eff            | ect     | shyl   | o the | w.            |         |       |            | 2            |
|          | > Terminologies:                             | 20        | יטו,  | 0    | Prog           | min     | Jose   | Hon,  | (3)           | Her     | nate. | exposor    | 412          |
|          | Sol q dutin                                  | Tro.      | beh   | n, G | க்.            | 18111   | 200    | Del   | AQUI          | <u></u> |       |            | 3            |
|          | > General Mechan                             | sm        | :     |      |                |         | -      |       |               | A       |       |            | 70           |
|          | >> Build the<br>>> create n'<br>>> Apply the | test      | C     | 0.80 | 2 +            | or te   | · P    | roge  | m             | note    | n to  | est        |              |
|          | >> create n'                                 |           | umi   | ber  | 9              | المالية | nath   | Con   | prog          | any     | KII.  | alle       | <u> </u>     |
|          | >> Apply Hou                                 | del       | - 0   | m r  | on             | the     | cy     | 2'    | alle          | rnad    | live  | Proka      | 1.5          |
| _        | mi   |           |       |      | ~              | 1.01    |        |       | 11            |         | 0.0   |            | -            |
| _        | nay behavior,                                | uto<br>He | enes  | 2 0  | 1011 C 2       | out     | exer   | COX   | alle          | 1 4 1 1 | oulce | ne of      | -            |
|          | else, the error                              | 3         | on    | di   | ibe.           |         |        |       | 1             |         | 301-  | J'-        |              |
|          | >> 16 the co                                 | He C      | 2,    | 35   | on             | emy     | ixacci | 4     | the           | +4      | + 80  | i les      |              |
|          |  |           | -     |      |                |         |        |       |               |         |       |            |              |
| -        |  |           |       |      | -              | -       |        | 1     |               |         |       | -14        |              |
| a,       | Triangle Program                             | one       | 1     | 000  | \$ 10          | 7       | able   | A     | proc          | ch.     |       | -          | -            |
|          | > The test a                                 | 508       | de    | علام | d 1            | NY '    | Leger  | 3 1   | Die .         | deci    | Rion  | Feeble     |              |
| -        | > The test a                                 | פרום      | de_   | pro  | gran           | of Or   | 1 5    | alger | renid         | be      | loci  | :          |              |
| -        |  | T         |       | 130  |                |         | _      |       |               |         |       |            | -            |
|          | Stube.                                       | RI        | R2    | R3   | Ry             | RS      | RL     | 1 80  | 182           | Rg      | Rio   | Ru         |              |
|          | Conditions                                   | -         | 10    | 1    | 1              | 1-      | -      | 1     | 1             | -       | 1     | -          |              |
| -        | (28 bs(10)                                   | F         | F     | 7    | 1              | 1       | 1      | 17    | 17            | 1       | 1     | T          |              |
| -        | (3 : (< (0+6))                               |           | 1     | F    | T              | T       | T      | T     | 1             | T       | 17    | 1          |              |
| -        | I (u · a · b ·                               | -         |       | -    | T              | I       | Ť      | F     | T             | F       | F     | E          | 5            |
|          | (5. 6=()                                     | -         |       | -    | 7              | E       | 1=     | I     | F             | 15      | 1I    | - <u>F</u> |              |
| -        | C6: C=a9                                     | -         | -     | 1    |                | -       | -      | 1     | -             |         | +-    | F-         |              |
|          | Actions                                      |           |       |      |                |         |        |       |               |         | 1     |            | -            |
| -        | A): Equilated Di                             | X         | X     | K    |                |         |        |       |               |         |       |            |              |
| menteri  | A): Equilateral De                           |           |       | -    | ×              |         |        |       |               |         |       |            |              |
|          | A3: 150 Scale De                             | -         |       |      |                |         |        |       | X             | X       | X     |            |              |
|          | Ay: Scalene He                               | -         |       |      | -              | -       | X      | ×     |               |         | -     | X          |              |
| -        | As: Not possible                             |           |       |      | 1              | X       | 1      |       |               |         |       | ļ          | <del> </del> |
| -        | The possible Test                            |           |       |      | 1              |         |        |       |               |         |       |            |              |
| HISTORY. | 1 5,5,5 ≥ ६91                                | المان     | eral  | Ma   | .   1          | lemoi   | inens  | tes   | tca           | set_    | are   | imposs     | 1 9          |
| agnore   | 2 5 6 5 8 C                                  | asce      | Ser 2 | 44.  | 10-            | lde     | -to-   | bleck | d             |         |       |            | 2.5          |
| arm.     | 4)(5, 10,51) NO                              | 0         | Ala.  |      |                |         |        |       |               |         |       |            | (8)          |
|          | \$15.5.10}                                   |           |       |      | 777            |         |        |       |               |         |       |            | (3)          |



| 2)   | Buildin.   | From      | and fault  | Terminolog   | ica:  | -                            |                                     |             |  |  |  |  |  |
|------|--|-----------|--|--|---|------------------------------|-------------------------------------|-------------|--|--|--|--|--|
|      |  |           |  | The second secon | - 1 1 0   |                              | 7E -                                | 4.5         |  |  |  |  |  |
|      | Gener  | ally on   | ms are   | ossitied o<br>Innoying, a<br>some, 3) E  | Destarbing  | Somale                       | inchie /                            |             |  |  |  |  |  |
|      | O ma   | d, 23 me  | 3) 6~1   | some B I   | atole ragle 1   | ) calast                     | ropide (                            |             |  |  |  |  |  |
| -    | (B) 50   | tections. | , 1) 1   |  |   |                              | (n                                  |             |  |  |  |  |  |
|      |  |           |  | - item of the  | us tall   | oucley by                    | oras: 12                            |             |  |  |  |  |  |
|      | The  | toulls    | age do   | ssitual iv   |   |                              | - 4011K                             | 3           |  |  |  |  |  |
| -    | 15 80  | out but   | ket family   | Digol (  | facility (3)  | un pul all                   | or i. jetters                       | MA.         |  |  |  |  |  |
|      | 4) In  | terrace   | facilis, 3   | Dote fam   | <i>B</i> ,  | ~~                           |                                     | 1           |  |  |  |  |  |
| -    |  |           |  |  | ,   |                              | 100                                 | - 10        |  |  |  |  |  |
| 25)  | Tes  | ting pho  | Les VR   | Develgomen   | t phases:   |                              | - 31                                |             |  |  |  |  |  |
|      | Testing phases we Development phases:  To provide the amphebensive captanation, V modelis used:  |           |  |  |   |                              |                                     |             |  |  |  |  |  |
|      | 1  | o bronn   | be the com   | prehensive   | Capatition  |                              | - Co. Live                          | 1           |  |  |  |  |  |
|      |  |           | oution)  |  |   | Sys.                         | en Testik                           | <del></del> |  |  |  |  |  |
|      | - Cart   |           | The state of the s | V  |   | (Inta                        | vation lesting                      | 4-          |  |  |  |  |  |
|      | Trompany transport   |           |  |  |   |                              |                                     |             |  |  |  |  |  |
|      | (Detoiled Coding") (Onit Testing)  |           |  |  |   |                              |                                     |             |  |  |  |  |  |
| 1 5  | (coding)   |           |  |  |   |                              |                                     |             |  |  |  |  |  |
|      | -  | No. 1.d.  | 1 Costino  | 200 101  | -   | )                            |                                     |             |  |  |  |  |  |
|      |  |           | n Josting  |  | d Jerel   | germant of                   | void!                               | 3.5         |  |  |  |  |  |
|      | Exploration about the Infalian.  |           |  |  |   |                              |                                     |             |  |  |  |  |  |
|      | The state of the s |           |  |  |   |                              |                                     |             |  |  |  |  |  |
| 30   | ) Test coses for comission problem using BUA;  |           |  |  |   |                              |                                     |             |  |  |  |  |  |
| 2 W, | 191  |           |  |  | 5-11-01   | , derived                    | rusery (tre                         |             |  |  |  |  |  |
|      | to   | ( Como    | useion 1740  | olarisad b   | solous:   |                              | rising the                          | Maler       |  |  |  |  |  |
|      | Outpu  | T PA      | A. 03 03   | plained 1  |   |                              |                                     | 1103        |  |  |  |  |  |
|      | Como   | nission   | Jounges!   | 11 0 101   | Z \ Cert)   |                              |                                     | FERR        |  |  |  |  |  |
|      | 1>   | C1 = 10   | 54. Sales  | - 18 solu  | 1000), 11 9   | LOS ICOD I                   | out 2 1800.                         | 2           |  |  |  |  |  |
|      | 2)   | C2 = 10   | X 900 1000 -   | 15% (800)  | + 20x & Cs  | Uges - 1800)                 | _                                   |             |  |  |  |  |  |
|      | Her  | CR CISC   | genevous   | follown  | CORPORATION AND ADDRESS OF THE PARTY OF THE | Comission                    |                                     |             |  |  |  |  |  |
|      | Id   | 100       | Stock  | Gamers   | 100.  | 10                           | opnin.                              | 411         |  |  |  |  |  |
|      | 12   | 1         | 1  | 2  | 125   | 12.5                         | opmtn-t.                            |             |  |  |  |  |  |
|      | 2 2  | 1         | 1  | 5  | 500   | 50                           | midpt (1)                           |             |  |  |  |  |  |
|      | 2)   |           | 5  | -  | 300   |                              |                                     |             |  |  |  |  |  |
|      | 35   | . 5       |  |  |   |                              |                                     | 0 -         |  |  |  |  |  |
|      |  | 5         |  |  |   | 1 000                        | Bowler M. ( )                       | 1           |  |  |  |  |  |
|      | 3)   | 10        | 10   | 10   | 1000  | 102.35                       | Border pt (1)                       | 4-7         |  |  |  |  |  |
|      |  |           | 10   | 10   | 1032  | 163.75                       | BP+                                 | 4.5         |  |  |  |  |  |
|      | 9  | 10        |  |  | 1032  | 16:01                        | BP+ .                               | 4->         |  |  |  |  |  |
|      | (3)<br>(4)<br>(7)<br>(13)  | 10        | 10   | 1  | 1032  | 163.75                       | BP+                                 | <b>-</b>    |  |  |  |  |  |
|      | (a)<br>(b)<br>(c)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d   | 10        | 10<br>14<br>18   | 14   | 14.47.<br>14.00<br>103.2  | 16:01                        | BP+ .                               | <b>-</b>    |  |  |  |  |  |
|      | (3)<br>(4)<br>(7)<br>(13)  | 10        | 10   | 14   | 1032  | 16.501                       | BP+ MIGHT (3)                       |             |  |  |  |  |  |
|      | (a)<br>(b)<br>(c)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d   | 10        | 10<br>14<br>18<br>48   | 14 13-   | 7 1 600<br>1 4 5 7<br>1 6 \infty  | 850<br>51532<br>160<br>10332 | BP+:  Midplo BP-  Midplo Output mod |             |  |  |  |  |  |
|      | (a)<br>(b)<br>(c)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d)<br>(d   | 10        | 10<br>14<br>18   | 14   | 14.47.<br>14.00<br>103.2  | 16.501                       | BP+ MIGHT (3)                       |             |  |  |  |  |  |



## **Department of Information Science and Engineering (IS)**

|          | ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY, MOODBIDRI DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING  |          |
|----------|--|----------|
|          | SUBJECT/ SUBJECT CODE SOFTWARE TESTING/15IS63  | TAI      |
|          | MAXIMUM MARKS 30   | 111-17.  |
| N<br>()  | SOLUTION   | MARKS    |
| 2        | Terminologies for software testing context.  |          |
|          | >> Fault > A fault is a gresult of an error - commission and   |          |
|          | Commission darilles  | 11       |
| 1        | 3) tailung - An execution fault mosult in failure.   |          |
| -        | 4) incident - It is a symptom that talkers the system failure. 5) Test - An act of energialing the cus with test cases to find cross and to encure convectness.  |          |
|          | 5) Test - An act of exercising the con with test care  |          |
|          | to find errors and to engage convectness.  |          |
|          | 6) Test case - A round containing margagem intermetter about   |          |
| _        | a test - Input, output, behaviors, etc.  |          |
| _        |  |          |
|          | 7) Test Sule: collection 9 test coses.   |          |
|          |  |          |
|          | Listing all 9 them 4 Explaining any 5 teams.   | a5+5=75  |
| _        |  |          |
| )        | Test cos, generation Techniques:   |          |
| _        | Test cor generation lactiviques:   |          |
| _        | There are a approaches to test case identification (a) generally   |          |
| _        | There are a approaches to test case identification is generally on. D Functional Testing ( ) Structural Testing.   |          |
|          |  |          |
|          | A) functional Testing: Structural Testing.  A) program is a function that 1) Program Implementation is known   |          |
|          | maps input domain to pales in to testes; based on it test care   |          |
| _        | ets varige an derived.   | <u> </u> |
|          | as lives the anguitientian sol as lives implementation detailed  |          |
|          | 1) Uses the specification del is Dece implementation delay developed test costs design.  |          |
|          | The state of the s |          |
|          | 3) These methods rarely used to 3) Generally range of the beloway  |          |
| _        | identify rerespective setound. can be caught easily.   | 5X1+     |
| _        | 4) They are not based on test 4) They oraquese the Leet coverage coverage metrics.   | 2.5      |
| 11-12    | a) They are not bessed on test 4) They original the test coverage covers of metrics.   | 1 36     |
|          |  |          |
|          | 5) Generally applicable at integration of Generally applied at Unit tent on and system testing level ing tested.   | - 10     |
|          |  | 1/1      |
|          | 6) Ex: RVA, ECT, DTA, etc 6) Ruth test my Still hard Testingel   | 1        |
|          |  |          |
| Aprilmia | DIP program of Computed  |          |
| -        | Caplat   | 1        |
| access:  | -> sperifications  |          |
| -        |  | - 3      |
| permi    | Arry 5 differences, + Explanation.   | 766      |
| дизн     |  | 100      |
|          |  |          |
| Autom    |  | 1000     |

Internal: 2

Semester:6-CBCS Date: 26/04/2018

Subject : SOFTWARE TESTING (15IS63)

Time : 09:30 - 11:00

Faculty : Sudarshana Max Marks: 30



| 1 | a | Define a DD Path. For the triangle problem build the test cases using the DD path testing.  | 8 | 4 | L3 |
|---|---|---|---|---|----|
| 1 | b | What is Scaffolding and test oracle? Build the scaffolding for the following module. Analyze the results. void intSwap(int x, int y) { x=x+y; y=x-y; x=x-y; }   | 7 | 3 | L4 |
|   |   | OR  |   |   |    |
| 2 | a | Define the different terminlogies used in data flow testing. For the following program build the DC paths for the variable "sum".class Test { static int arr[] = {12,3,4,15}; static int sum() { int sum = 0; int i; for (i = 0; i < arr.length; i++) sum += arr[i]; return sum; } public static void main(String[] args) { System.out.println("Sum of given array is " + sum()); } } | 8 | 4 | L3 |
| 2 | b | Analyze the "Allocation of responsibilities and rewarding mechanisms".  | 7 | 3 | L4 |
|   |   |   |   |   |    |
| 3 | a | Build the Test and Analysis Plan for testing the quality of the "https://www.flipkart.com" website.   | 8 | 5 | L4 |
| 3 | b | Discuss the various risk related issues addressed in "https://www.flipkart.com" for the Test and Analysis Plan.   | 7 | 4 | L4 |
|   |   | OR  |   |   | 1  |
| 4 | a | Prepare the Test Design Specification Document for testing the quality of the "https://www.amazon.in" website. Discuss the document content.  | 8 | 5 | L3 |
| 4 | b | Discuss the various principles used in Software Testing   | 7 | 4 | L3 |

|            |                           |   | Q | Q1 |   | Q2 |   | 13 | C | Q4 |    |         |
|------------|---------------------------|---|---|----|---|----|---|----|---|----|----|---------|
|            |                           |   | а | b  | а | b  | а | b  | а | b  |    |         |
| 4AL15IS001 | Aishwarya J Shetty        | Р | 8 | 7  | 0 | 0  | 8 | 7  | 0 | 0  | 30 | Analyze |
| 4AL15IS006 | Anvaya Kini               | Р | 6 | 6  | 0 | 0  | 7 | 5  | 0 | 0  | 24 | Analyze |
| 4AL15IS007 | Chandan Ramesh<br>Shastri | Р | 7 | 7  | 0 | 0  | 7 | 3  | 6 | 0  | 24 | Analyze |
| 4AL15IS008 | Deepashree V              | Р | 7 | 7  | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS009 | Ganesh Prasad E           | Р | 7 | 7  | 0 | 0  | 6 | 6  | 0 | 0  | 26 | Analyze |
| 4AL15IS011 | Harshitha K O             | Р | 8 | 7  | 0 | 0  | 8 | 7  | 0 | 0  | 30 | Analyze |
| 4AL15IS016 | K J MYTHRI                | Р | 7 | 7  | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS012 | Kavana M G                | Р | 7 | 7  | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS015 | Minal Pinto               | Р | 8 | 7  | 0 | 0  | 8 | 7  | 0 | 0  | 30 | Analyze |



|            |                                       |   | Q1 |   | Q | Q2 |   | Q3 |   | Q4 |    |         |
|------------|---------------------------------------|---|----|---|---|----|---|----|---|----|----|---------|
|            |                                       |   | а  | b | а | b  | а | b  | а | b  |    |         |
| 4AL15IS017 | Nikshitha                             | Р | 7  | 7 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS018 | Nisha                                 | Р | 7  | 7 | 0 | 0  | 7 | 5  | 0 | 0  | 26 | Analyze |
| 4AL15IS020 | Pavan Kumar M R                       | Р | 7  | 5 | 0 | 0  | 5 | 5  | 0 | 0  | 22 | Analyze |
| 4AL15IS022 | Pooja                                 | Р | 7  | 7 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS023 | Pooja Gangadhara<br>Hegde             | Р | 7  | 7 | 4 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS024 | Pooja R                               | Р | 7  | 7 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS025 | Pooja T S                             | Р | 7  | 7 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS026 | Poojitha                              | Р | 7  | 7 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS027 | Prajna M                              | Р | 8  | 6 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS031 | Rachana S                             | Р | 8  | 7 | 0 | 0  | 8 | 3  | 0 | 0  | 26 | Analyze |
| 4AL15IS036 | Sameeksha Hegde                       | Р | 6  | 6 | 0 | 0  | 6 | 6  | 0 | 0  | 24 | Analyze |
| 4AL15IS038 | Shaziya Banu                          | Р | 7  | 7 | 0 | 0  | 7 | 3  | 0 | 0  | 24 | Analyze |
| 4AL15IS041 | Shetty Vignesh<br>Suresh              | Р | 6  | 6 | 0 | 0  | 6 | 6  | 0 | 0  | 24 | Analyze |
| 4AL15IS043 | Srinivas S                            | Р | 7  | 7 | 0 | 0  | 5 | 5  | 0 | 0  | 24 | Analyze |
| 4AL15IS044 | Sukanaya<br>Viruprakashi<br>Madiwalar | Р | 6  | 6 | 0 | 0  | 6 | 6  | 0 | 0  | 24 | Analyze |
| 4AL15IS045 | Sushmitha H S                         | Р | 7  | 7 | 6 | 4  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS046 | Swarna Gowri R S                      | Р | 7  | 7 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS047 | Thaizeera A S                         | Р | 7  | 7 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |
| 4AL15IS049 | Vishal Naik N                         | Р | 7  | 7 | 0 | 0  | 7 | 5  | 0 | 0  | 26 | Analyze |
| 4AL15IS050 | Vishwath Putti                        | Р | 7  | 7 | 0 | 0  | 7 | 7  | 0 | 0  | 28 | Analyze |



## **Department of Information Science and Engineering (IS)**

Internal: 3

Semester:6-CBCS Date: 18/05/2018

Subject: SOFTWARE TESTING (15IS63) Time: 09:30 - 11:00

Faculty : Sudarshana Max Marks: 30

|   |   | Answer Any 2 Questions   |   |   |    |
|---|---|--|---|---|----|
| 1 | a | Differentiate between system testing and acceptance testing.   | 8 | 2 | L2 |
| 1 | b | Build the level 1 dataflow diagram for the SATM system.  | 7 | 4 | L3 |
|   |   | OR   |   |   |    |
| 2 | a | Differentiate between various integration testing strategies.  | 8 | 2 | L2 |
| 2 | b | Biuld the upper level finite state machine for the SATM system.  | 7 | 4 | L3 |
|   |   |  |   |   |    |
| 3 | a | Build a partial decomposition tree for the SATM system.  | 8 | 4 | L3 |
| 3 | b | What is a thread? Explain the basic concepts in requirements specification to identify the threads to support the testing. | 7 | 3 | L2 |
|   |   | OR   |   |   |    |
| 4 | a | For the Nextdate program build the call graph.   | 8 | 4 | L3 |
| 4 | b | Explain the basic concepts in MM Path testing and identify the MM path for the 19-05-2018 using the nextdate program.      | 7 | 3 | L2 |

|            |                           |    | Q | Q1 |   | Q2 |   | Q3 |   | 4 |    |          |
|------------|---------------------------|----|---|----|---|----|---|----|---|---|----|----------|
|            |                           |    | а | b  | а | b  | а | b  | а | b |    |          |
| 4AL15IS001 | Aishwarya J Shetty        | Ab | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0  | No Level |
| 4AL15IS006 | Anvaya Kini               | Р  | 0 | 0  | 7 | 7  | 1 | 0  | 0 | 0 | 15 | Apply    |
| 4AL15IS007 | Chandan Ramesh<br>Shastri | Р  | 6 | 4  | 0 | 0  | 3 | 5  | 0 | 0 | 18 | Apply    |
| 4AL15IS008 | Deepashree V              | Р  | 0 | 0  | 8 | 5  | 5 | 3  | 0 | 0 | 21 | Apply    |
| 4AL15IS009 | Ganesh Prasad E           | Р  | 0 | 0  | 6 | 6  | 6 | 0  | 0 | 0 | 18 | Apply    |
| 4AL15IS011 | Harshitha K O             | Ab | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0  | No Level |
| 4AL15IS016 | K J MYTHRI                | Ab | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0  | No Level |
| 4AL15IS012 | Kavana M G                | Р  | 7 | 7  | 0 | 0  | 7 | 3  | 0 | 0 | 24 | Apply    |
| 4AL15IS015 | Minal Pinto               | Ab | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0  | No Level |
| 4AL15IS017 | Nikshitha                 | Ab | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0 | 0  | No Level |



## ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

#### **Department of Information Science and Engineering (IS)**

|            |                                       |    | Q | 1 | C | 12 | Q | 3 | C | 14 |    |          |
|------------|---------------------------------------|----|---|---|---|----|---|---|---|----|----|----------|
|            |                                       |    | а | b | а | b  | а | b | а | b  |    |          |
| 4AL15IS018 | Nisha                                 | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS020 | Pavan Kumar M R                       | Р  | 6 | 6 | 4 | 4  | 4 | 2 | 0 | 0  | 18 | Apply    |
| 4AL15IS022 | Pooja                                 | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS023 | Pooja Gangadhara<br>Hegde             | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS024 | Pooja R                               | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS025 | Pooja T S                             | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS026 | Poojitha                              | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS027 | Prajna M                              | Р  | 6 | 7 | 0 | 0  | 6 | 3 | 0 | 0  | 22 | Apply    |
| 4AL15IS031 | Rachana S                             | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS036 | Sameeksha Hegde                       | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS038 | Shaziya Banu                          | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS041 | Shetty Vignesh<br>Suresh              | Р  | 0 | 0 | 6 | 6  | 7 | 5 | 0 | 0  | 24 | Apply    |
| 4AL15IS043 | Srinivas S                            | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS044 | Sukanaya<br>Viruprakashi<br>Madiwalar | Р  | 0 | 6 | 0 | 0  | 6 | 6 | 0 | 0  | 18 | Apply    |
| 4AL15IS045 | Sushmitha H S                         | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS046 | Swarna Gowri R S                      | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS047 | Thaizeera A S                         | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS049 | Vishal Naik N                         | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |
| 4AL15IS050 | Vishwath Putti                        | Ab | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  | No Level |



# ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

**Department of Information Science and Engineering (IS)** 

| ALVA'S INSTITUTE OF ENGINEER              | ING & TECHNOLOGY, MOODBIDRI  | <del></del>             |
|---|--|-------------------------|
| DEI ARTMENT OF INFORMATIO                 | ON SCIENCE AND ENGINEERING   |                         |
| SUBJECT/ SUBJECT CODE                     | SOFTWARE TESTING/15IS6   | 3 (IA-I).               |
| MAXIMUM MARKS                             | 30   |                         |
| SN SOL                                    | UTION  | MARKS                   |
| 1 Torreliables for Satt                   | sting context.   | •                       |
| Mistales mide                             |  |                         |
| >> Fault -> A fault is a gresu            | It of an error - commission and  | d                       |
|   |  | 1.7"                    |
| tactified to                              | ult results in failure.  |                         |
|   | nat allers to System failure.  |                         |
| to find errors and to                     | Bing the ew with fest com  | 4                       |
|   | entire correctness.  |                         |
| 6) Test case- A record contains           | My necoganis satom Han alos  | <del> </del>            |
| a test = input, output, behave            | ior, etc.  | 4                       |
| d) fort Cilla:                            | u'   |                         |
| 7) jest Suite: collection                 | 9 test cosey.  |                         |
|   |  |                         |
| Listing all 9 them & Expl                 |  | <u> </u>                |
| tisting any given a expl                  | aining any 5 terms.  | 2.5+5=755               |
|   | 1 11 11 11 11 11 11  |                         |
| 1) Test case generation Techniques        |  |                         |
|   | The second secon |                         |
| There are & approaches to te              | est case identification (s) generali   |                         |
| con. D Functional testing @ str           | uctural Testing.   |                         |
| a) functional Testing:                    | Structural Testing.  |                         |
| Derogram is a function that 1)            | Structural Testing.  Program implementation is known   |                         |
| maps input domain to realize en           | to tester, hosed on it test com  |                         |
| Its vange.                                | are derived.   |                         |
| 0   |  | ,                       |
| 2) USES the specification tos. 2)         | Use implementation details to  |                         |
| test case design.                         | protest as derivation.   |                         |
| 3) These methods raxely used to 3)        | Generally rerepectical belavior  | i                       |
| identify renspecified schauson.           | can be cauelt easily.  | CXI+                    |
| measured                                  |  | <del>5/\ </del>         |
| Alther are not based on test 4)           | 20,1   | d.2                     |
| coverage metrics.                         | metricl.   | 7.                      |
| 510 10 at introloti                       | Generally and at mit lat   |                         |
| 5) Generally applicable at integration 5) | Generally applied at Unit fest   | 1-                      |
| and System testing level                  |  | <i>i.</i>               |
| SEX: BVA, ECT, DTA. etc 6)                | Path fest in Still hard Testinger  | V                       |
|   |  |                         |
| DR program of Compand                     | and the same of th | <u> </u>                |
| Compared                                  |  |                         |
| > cigatryt<br>> sperfications.            | 11 21 71 0   |                         |
|   | · ·  |                         |
| Arry 5 differences + Explain              | notion:  |                         |
| 0   |  | 100                     |
|   |  |                         |
|   | -:   | $\overline{\mathbb{O}}$ |
|   |  |                         |

| Q) 1     | Builde  | m Error  | and faul  | t Terminolo   | gies ,  |   |   |       |
|----------|---|--|---|---|---|---|---|-------|
|          | _   |  |   |   |   | ο`  | 7-  | •     |
|          | Gene  | rally or   | your are c  | Annoying, (G<br>Herne, (8) I  | 2 Leman   | min () Semistr  | /F  | 245   |
|          | is mi   | 1d, 2) m   | oderate, 3  | Annoyeng, (9  | - tolexolde   | on contract   | Jonnie !  |       |
|          | 6) X  | exy 8exi   | ous, 7) 8x1   | teme, (8) 1   | Willow goodle   | (4) cood 2)   | ·opias  |       |
|          | (B) T   | ntections  | ,   |   | · ·   |   | ('n   |       |
|          |   |  | ~ .   | assitied in   | a to te   | Merchaelle  | Morphe: 19  |       |
|          | The   | talles   | age a   | SACINCY (V  | ) (3  |   | E   |       |
|          | \ C   | + b b  | n. A Loube  | Data faul   | touts 3   | ) computat  | ion taults  | 3     |
|          | 17 54   | put Dux  | troube B  | Data taul   | B.  | Ū   | In  |       |
| -        | 4) I  | 1 terquie  | Taxas, e  | 700-1-300   |   |   |   |       |
|          |   | line place   |   | Davidan   | t phase   | Q.`   | 1   |       |
| 5)       | les   | sting pro  | yes Vs  | Denerabliner  |   | ( )   | 7 0 000   |       |
|          | 1   | o bron   | de the con  | molehensile   | eaplanation   | on, V mod   | elts wear.  |       |
|          | Requi   | irement sp   | ecutioation.)~  |   |   | (sy8  | tem Testis  |       |
|          |   |  |   | <u>\psi</u>   |   | (a.l.   | mation autim  | 40    |
|          |   |  | (Priliminary)   | Deerigo   |   | (1nt  | gation lestin   | 4     |
|          |   |  |   | Detailed &  | 197   | Onit  | Testing)  |       |
| -+       |   |  |   | vertical (a)  |   | 0.41  | lear.   |       |
| -        |   |  |   |   | Cooling   | 7   | K .   |       |
| -        | Ool   | aton his   | u Jesting   | Marei   | 19  |   |   |       |
|          |   | action of  |   | or  | d Tell  | Clasmout p  | share,  |       |
| -        |   |  |   | - 9 al- Dia   | 4   | ا محم   |   | 3-7   |
| 4        | FX  | planation  | 1 about U   | A SCHOOLINY   |   |   |   |       |
|          | Ex  | planation  | 1 about 10  | A SUBJULY   | · · · · · · · · · · · · · · · · · · ·   |   |   |       |
| <u>\</u> |   |  |   |   |   |   |   | ~     |
| 3 a)     | FX<br>Tes-  |  |   | Com/BRIM  |   | n using c   | BUA:  | ~     |
| 3 (2)    | Tes.  | t case,  | 8 tol   | Comission   | probler   |   |   | _     |
| 3 (2)    | Test  | Case   | nission Pro   | Comission   | probler<br>coses  |   |   | ~     |
| 3 9)     | Tes.  | Case   | 8 tol   | Comission   | probler   |   |   | _     |
| 3 a)     | Test  | Conse  | nission Pro   | Comission   | probler<br>coses  |   |   | 1     |
| 3 a)     | Test  | M Commut By  | nission Pro<br>A. au ex   | comission<br>oblem tast<br>placenced b  | probler cases a   |   |   |       |
| 3 a)     | Test outp   | M Commut By  | nission Pro<br>A. au ex<br>Younges!   | Comission  sblem, test  placened b  | problem cases a   | are derived   | reserge the   | 1     |
| 3 a)     | Test Outp   | mission<br>C1 = 10<br>C2 = 10  | mission Pro<br>A. au ex<br>Yonges:<br>0% Sales  | com/88ion<br>sblem, tast<br>placened b<br>- if sales <<br>15% (sales -<br>15% f (800).  | probler<br>coses (<br>elow:<br>(1000)<br>(1000), 18 (<br>+ 20%. 9 (   | an derived  | receing the   | 1     |
| 3 @)     | Test<br>Outp  | mission<br>C1 = 10<br>C2 = 10  | rission Pro<br>A, as ex<br>Younges!<br>0% Sales:<br>0% 9 1000+1   | com/BRIM  sblem, tast  placenced b  - if sales  - if sales  - if sales  - if sales  | 2000:<br>2000:<br>(1000), 14 (1000), 14 (1000)  | Saley-1800)   | receing the   | 2     |
|          | Test  Com  Com  1)  2)  Here  Test  | m(85)00<br>or C3 = 10<br>or C3 = 10<br>or C3 = 10<br>or C3 = 10  | A. as ex<br>Younges:<br>Dy. Sales<br>Dy. 9 1000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+ | com/88ion<br>sblem, tast<br>placened b<br>- if sales <<br>15% (sales -<br>15% f (800).  | problem<br>coses<br>elow:<br>elow:<br>1000<br>(1000), if (<br>+ 20%, q (<br>y, testor   | Saley-1800)   | rusery the  | 1     |
|          | Test  From  Com  1)  2)  1)  1)  1)  1)                                     | M Commut By  mission  C1 = 10  C2 = 10  C3 = 10  MCC CUC   | rission Pro<br>A, as ex<br>Younges!<br>0% Sales:<br>0% 9 1000+1   | com/BRIM  sblem, tast  placincal b  - if sales  is x (sales -  15 x f (800),  tollower  Barrels   | problem<br>coses of<br>elow:<br>elow:<br>(100), ix (<br>+ 20% q (<br>y tost o<br>souly<br>100.  | Sales - 1800) Comission                                       | receing the   | 2     |
|          | Test  From  Com  1)  2)  1)  1)  1)  1)                                     | m(85)00<br>or C3 = 10<br>or C3 = 10<br>or C3 = 10<br>or C3 = 10  | A. as ex<br>Younges:<br>Dy. Sales<br>Dy. 9 1000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+ | Com 188101<br>sblem test<br>placenced b<br>- ij sales -<br>is x (sales -<br>15% f (800) -<br>tollocusin   | problem<br>coses<br>elow:<br>elow:<br>1000<br>(1000), if (<br>+ 20%, q (<br>y, testor   | Sales - 1800) Comission                                       | recing the  | 2     |
|          | Test<br>Outpo   | mission  C2 = 10  C3 = 10  C3 = 10  C4 C3 = 10  C5 C3 = 10  C7 C3  | mission Pro  A. au ex  Younges!  Oy. Sales  Oy. 9 1000+  9enevate  Stock  1                                       | Comission  sblem, tast  placined b  - ij sales < 15 × (sales - 15 × f (800) -  tollocurin  Barrels  1   | 1000<br>1000), 11 (1000)<br>1000), 120y, 9 (1000), 125  | Soley 1000 h<br>Soley - 1800)<br>Ozer.<br>Comission<br>12:5   | Remark. opmin. opmint.  | 2     |
|          | Test  Com  Com  1)  2)  Here  Test  | M Commut By  mission  C1 = 10  C2 = 10  C3 = 10  MCC CUC   | A. as ex<br>Younges:<br>Dy. Sales<br>Dy. 9 1000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+<br>Dy. 9000+ | com/BRIM  sblem, tast  placincal b  - if sales  is x (sales -  15 x f (800),  tollower  Barrels   | problem<br>coses of<br>elow:<br>elow:<br>(100), ix (<br>+ 20% q (<br>y tost o<br>souly<br>100.  | Sales - 1800) Comission                                       | receire the   | 2     |
|          | Test<br>Outpo   | mission  C2 = 10  C3 = 10  C3 = 10  C4 C3 = 10  C5 C3 = 10  C7 C3  | mission Pro  A. au ex  Younges!  Oy. Sales  Oy. 9 1000+  9enevate  Stock  1                                       | Comission  sblem, tast  placined b  - ij sales < 15 × (sales - 15 × f (800) -  tollocurin  Barrels  1   | 1000<br>1000), 11 (1000)<br>1000), 120y, 9 (1000), 125  | Soley 1000 h<br>Soley - 1800)<br>Ozer.<br>Comission<br>12:5   | Remark. opmin. opmint.  | 2     |
| 3 (2)    | Tes-  Toutp  Comp  1  2  3  1-  1  2  3  5  9                               | M Commut By  mission  c1 = 10  c2 = 10  c3 = 10  c3 = 10  c4 c4 c4  1  | mission Pro  A. as ex  Younges!  Oy. Sales  Oy. 9 1000+  Genevate  Stock  1  1  5                                 | Comission  sblem, tast  placined b  - ij sales < 15 × (sales - 15 × f (800) -  tollocurin  Barrels  1   | 1000<br>1000), 11 (1000)<br>1000), 120y, 9 (1000), 125  | Soles-1800) Compsion 12:5                                     | Remanc.  Opmin.  opmint.  midpt(1).                                       | 2     |
|          | Test<br>Outp  | M Commut By  M Com | nission Pro A. as ex  Younges: 0% Sales 0% 9 1000+ 0% 9 1000+ 1 2 tock 1  | Comission  sblem, tast  placincal b  - if sales  - if | 1000 (1000); 18 (100); 18 | Soley 1000 h<br>Soley - 1800)<br>Ozer.<br>Comission<br>12:5   | Remark. Opmin. opmint. Midpt (1).   | 4-5   |
|          | Tes:  Outp  () 2) 3) Here () 2) () () () () () () () () () () () () ()      | M Commut By  M Com | mission Pro  A. as ex  Younges!  Oy. Sales  Oy. 9 1000+  9enevate  1  !  5  | Com/BRIM  sblem, tast  placincal b  - if sales  is x (sales -  15 x f (800),  tollower  Carrels  2  10  10  11  | 1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000  | Soles-1800) Compsion 12:5                                     | Remanc.  Opmin.  opmint.  midpt(1).                                       | 2-4-5 |
|          | Tes-  Toutp  Com  1  2  3  1-  1-  2  3  1-  1-  1-  1-  1-  1-  1-  1-  1- | 1 Case  M Commut By  M Commut B | nission Pro A. as ex  ronges! 0% Sales 0% gloso+ 1 9enevate 1 1 10 10   | Comission  sblem, tast  placincal b  - if sales  - if | 1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000  | Soley 1000 h<br>Soley - 1800)<br>Ozer.<br>Comission<br>12:5   | Remanc.  Opmin.  opmin.  opmin+.  Midpt(1).  Borderpt(1).                 | 4-5   |
|          | Tes:  Outp  () 2) 3) Here () 2) () () () () () () () () () () () () ()      | M Commut By  M Com | mission Pro  A. as ex  Younges!  Oy. Sales  Oy. 9 1000+  9enevate  1  !  5  | Com/BRIM  sblem, tast  placincal b  - if sales  is x (sales -  15 x f (800),  tollower  Carrels  2  10  10  11  | 1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000  | Saley-1800) Saley-1800) Compsion 12:5  100 103.75             | Remark. Opmin. opmint. Midpt (1).   | 4-5   |
|          | Tes: Outp   | 1 Commut By  mission  c1 = 10  c2 = 10  c3 = 10  c3 = 10  c4 c4 c4  1  1  10  10  10   | mission Pro  A. as ex  Younges:  Oy. Sales  Oy. 9 1000+  Genevate  Stock  1  10  10                               | Comission  sblem, tast  placincal b  - if sales  - if | 1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000  | (00 160)  | Remark. Opmin. opmin. opmin+. Midpf(1). Borderpt(1). Bp+.                 | 4-5   |
|          | Tes-  Toutp  Com  1  2  3  1-  1-  2  3  1-  1-  1-  1-  1-  1-  1-  1-  1- | 1 Case  M Commut By  M Commut B | nission Pro A. as ex  ronges! 0% Sales 0% gloso+ 1 9enevate 1 1 10 10   | Comission  sblem, tast  placincal b  - if sales  - if | 1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000  | Soles - 1800)  Soles - 1800)  Compsion  10  12:5  100  103.75 | Remark.  Opmin.  opmint.  Midpt(1).  Borderpt(1).  Bp+.                   | 4-5   |
|          | Tes: Outp   | 1 Commut By  mission  c1 = 10  c2 = 10  c3 = 10  c3 = 10  c4 c4 c4  1  1  10  10  10   | mission Pro A. as ex  Younges!  Oy. Sales  Oy. 9 1000+  9enevate  1  1  10  10  19                                | Comission  sblem, tast  placincal b  - if sales  - if | 1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000  | (00 160)  | Remark.  Opmin.  opmin.  opmin+.  Midpt(1).  Borderpt(1).  Bp+.  Midpt(3) | 4-5   |
|          | Tes: Outp   | 1 Commut By  mission  c1 = 10  c2 = 10  c3 = 10  c3 = 10  c4 c4 c4  1  1  10  10  10   | mission Pro  A. as ex  Younges:  Oy. Sales  Oy. 9 1000+  Genevate  Stock  1  10  10                               | Comission  sblem, tast  placincal b  - if sales  - if | 1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000  | (00 160)  | Remark. Opmin. opmin. opmin+. Midpf(1). Borderpt(1). Bp+.                 | 4-5   |

|       | ATTECHNOLOGY   |        |
|-------|--|--------|
|       | ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY SOLUTION  | MARKS  |
| SN    | Fault Based Testing!   |        |
| 2b)   |  |        |
|       | > Engineers study the toulures to prevent similar failures   | 1      |
|       | sies de transporter and  |        |
|       | > Experience with leads to improvements in designand   | •      |
|       | product development.   |        |
|       | > Assumptions: 1) Competent programmer hypothesis.   | Q      |
|       | 2) caupling effect hypothesis.   | 2      |
|       |  |        |
|       | _on, @ Alternate program, & Distinct behavior,  O set q distinct behaviors.  | 2      |
|       | on a Herrate program, & Distinct behavior,   | )      |
|       | 6 see of autilities appropriate.   |        |
| -     | General Mechanism:   |        |
| -     |  | - 2    |
|       | > Build the test cases for the program under test  |        |
|       | > create n' number q afternative programs by after   |        |
|       | > create n' number q culternative programs by alter<br>eine an expression in the PUTC seed by fault)<br>>> Apply the test asson there n' alternative propa   | 1.5    |
| -     | man de la  |        |
|       | Su last distance an different the one  |        |
| -     | naj behavior, then program is correctly working;   |        |
|       | else, the errors are dille.  |        |
| 11    | >> Up the case of, go on emproving the test suites.  | 27     |
|       |  |        |
|       |  |        |
| 40)   | Triangle Program and Decision Table Approach:  |        |
| 44)   |  |        |
| 1     | > The test cases derived by reseng the decision teste  |        |
| X     | approach to totangle programs as explosing below.  |        |
|       |  |        |
|       | Stube. RI R2 R3 R4 R5 R6 R2 R9 R10 Ru  |        |
| 1     | Conditions   |        |
|       | C1.0(h+c4)   |        |
|       | (28 hc(ta))  |        |
| 16    | (3) (< (276)   | 5      |
|       | (4: 4=b1   |        |
|       | 3. b=(  T   T   T   T   T   T   T   T   T   T  |        |
|       | C6 . C= a9   |        |
|       | Actions.   |        |
|       | Ol & Nota Trianel. XXX   |        |
|       | A2: Equilateral De.  |        |
|       | 43 1 50 6000 0   |        |
|       | All & Contains XI  |        |
|       | As: Not possible.  |        |
| /     | II Cook as one Dan?  |        |
| _     | The possible Test cases are:  1) 5,5,5 > Equilateral > le.   Remaining test cases are impossion > 5,5,5 > 9 sosceles > le   b breild.  3) 5, 6,4 > Ecolene > le   b breild.  3) 5, 10,5 > nota > le.    5) 15,5,10    6) 10,5,10 |        |
| (New  | 1) = 5 5 > Equilateral 26. Remaining test cases are impossi  | 2.5    |
| - dry | 2) - 55 => 9 805celes De le po heild.  | Q 3    |
|       | 2 Colene de.   |        |
|       | No chi what a sle-   | (3)    |
|       | 3, 10,0  | (3)    |
|       | 3/5/0/   | $\sim$ |
|       | 7 4 10, 3, 101   |        |

| 1 1 1000 10  |      |
|--|------|
| b) Mutation Analysis and Types:  |      |
| analytic Tech  | n    |
| >> MA is a common su bon facult based analytic Tech  |      |
| > Following are the three MA variations:   |      |
|  | 2.5  |
| D Strong Mutation Avalytis   | -    |
| 2 11 reads mutation Analysis   |      |
| 2) Strong Mulation Analysis<br>27 Weeks mulation Analysis<br>3) Static Mertation Analysis.   |      |
| y access   |      |
|  |      |
| 1) Strong Mutation Analysis ?  | 1    |
| a soul and another are willed based on op.   | -    |
| >MA in which we say millioners we seem   |      |
| > Requires   | 9    |
| member a test are are steglessed.  | 0    |
| >MA En which we lay meetable are willed based on op.  > Requires  Large number of meetants.  * Large number of fest ares as sequeised.   | -    |
| >2t's more acculeate metation analysis.  | 12   |
| 413 1111/2 (1111/2)  |      |
| or Weak-Mutation Analysis:   |      |
| of Weak- Witterson Meagers.  It is a variant of strong MA, where in the number of mutants required in Aduced. But it segrette close of mutants required in the legisled.  - Not reduce no is test care required.  > It reduced the time for execution and cost effects |      |
| It is a variant of strangered But it legents close   |      |
| 9 meetants required the leguised.  | ( )  |
| - Not reduce no 9 700 time to execution and cost estecution  | X    |
| >> It reduces the  |      |
|  |      |
| 3) Static Mutation Analysis;   |      |
| >MA can be used to estimate to the entent to cubich a test cases distinguished the seeded fruitant with original overcam.  |      |
| >MA can be used to still seeded fruitant with ongra  |      |
| a test cases suspinguism   | 0    |
| >> Beguses les nember 9 toutants. >> Beguses les nember 9 toutants. >> Parfial coverage is another limitetion.   | d    |
| Boouses less nember 9 reputans.  | -    |
| > Distral coverage is another  |      |
| 7 1201   |      |
| > Can be resed to blermène Jestimale the number of rendi   |      |
|  |      |
| sovered mutaras.   |      |
|  |      |
|  |      |
|  |      |
|  |      |
|  |      |
|  |      |
|  |      |
|  |      |
|  |      |
|  |      |
|  | W    |
|  | Year |
| HoD 5142   |      |
| FACULTY INCHARGE  HoD  FACULTY INCHARGE  HoD  Mijar, MOODBIDM  5742  |      |

| DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING   | <u> </u>         |
|---|------------------|
| SUBJECT/ SUBJECT CODE SOFTWARE TESTING/15IS63   |                  |
| MAXIMUM MARKS 30  | MADIZ            |
| SOLUTION  | MARK             |
| A DD Path is a sequence of nodes water sindy in a graph   | · ·              |
| case-1. It consides of a sinde nade with under =0.  | 1.5              |
| peace -2: It consists of a single made with outdeg EO'  | 2                |
| > case-3: It consists of a single mode with indeg>=2 @outdeg  |                  |
| man year 2 = 8.   | 100              |
| 3 case 4: It consists of a single made with indeg-14doubleg=1   |                  |
| > cox5: It is a maximal chain of length>=1.   | 100              |
| (gred patry path outcome  | 16               |
| STAABSOFFAGOSLOST NOT a De Egli   | -                |
| A 2) (D>A>B>(=F>F>H+) F> PARAME GOTTHE  | (2)              |
| N-> D-> Last.   |                  |
| (B) 3) (ot) A+B>C>E>F>H>J>K>ming Scalene.   | (A)              |
| AND OX COSTO P DOCOMO.  | s 6              |
|   |                  |
| (4) St > A > B > C > E > F >   + > J > Decelles   |                  |
| TE THOSE OF WEME  | (E)              |
| (P) Fearible pairs.   | (2)              |
|   |                  |
| lest cases.   | ,                |
| Id A B C Output   |                  |
| (D) C 1 5 6 11 Sever Not a de.  |                  |
| 2 5 5 Farilateral de.   | (D)              |
| (E) 3 5 6 Scalene.  | 20 1             |
| 4 5 6 5 2 50 secoles.   |                  |
|   | (8               |
| (N) Jost Suites:-   | <b>Q</b>         |
|   | 1                |
| OF COST   |                  |
|   | - A / A -        |
| an or note clark  |                  |
| 40- Do path glaph.  | Y Y              |
| 90-DD patts glaph.  | X                |
|   | - V              |
| UScaffolding:   | X                |
| (i) Scaffolding:  Cade produced to support development activities   |                  |
| WScaffolding:   |                  |
| Escatfolding:  Code produced to suppost development activities in cluding - Test havness, devivery, etuss.  | 1+1              |
| (i) Scaffolding:  Code produced to suppost development activities in cluding - Test hainers, derivery, etules.  (ii) Oracles: - The mechanism that determines test pars fail  | 1+1              |
| Escatfolding:  Code produced to support development activities in cluding - Test havness, devicery, etuss.  | 1+1              |
| (i) Scaffolding:  Code produced to support development activities in cluding - Test hames, derivery, etules.  (ii) Oracles: - The mechanism that determines test pass fail ceife na is called as an oracle.   | 1+1              |
| (i) Scaffolding:  Code produced to support development activities in cluding - Test haeness, devivery, stuss.  (ii) Oracles: - The mechanism that determines test pars fail ceife na is called as an oracle.  In coider to execute the code-additional code is gen  | 1+1              |
| (i) Scaffolding:  Code produced to support development activities in cluding - Test havness, derivery, etules.  (ii) Oracles: - The mechanism that determines test pass fail ceife na is called as an oracle.  In order to execute the code-inditional code is gen except. It is as shown below:  | 1+1              |
| (i) Scaffolding:  Code produced to support development activities in cluding - Test haeness, devivery, stuss.  (ii) Oracles: - The mechanism that determines test pars fail ceife na is called as an oracle.  In coider to execute the code-additional code is gen  | 1+1              |
| (i) Scaffolding:  Code produced to suppost development activities in cluding - Test hainers, derivery, etuss.  (ii) Oracles: - The mechanism that determines test para I fail cerife na is called as an oracle.  (iii) In order to execute the code-inditional code is gen exacted. It is as shown below:  # include < staio n > int x, y;  Void not swap (int x x, int x)  | +3               |
| (i) Scaffolding:  Code produced to support development activities in cluding - Test haven, derivery, etules.  (ii) Oracles: - The mechanism that determines test pass fail cerife na is called as an oracle.  (iii) In order to execute the code - inditional code is gen exacted. It is ay shown below:  #include & staio ny int xxy;  Void Road ()  Extension Enter (the values for X, yln");  **Text Y: Y= X-y; X= | 1+1<br>+3<br>) ] |
| (i) Scaffolding:  Code produced to suppost development activities in cluding - Test hainers, derivery, etuss.  (ii) Oracles: - The mechanism that determines test para I fail cerife na is called as an oracle.  (iii) In order to execute the code-inditional code is gen exacted. It is as shown below:  # include < staio n > int x, y;  Void not swap (int x x, int x)  | 1+1<br>+3        |
| (i) Scaffolding:  Code produced to support development activities in cluding - Test hainers, devisery, etulos.  (ii) Oscales: - The mechanism that determines test pars fail cerife na is called as an oscale.  (iii) In corder to execute the code-additional code is gen exacted. It is an shown below:  I include a station no int x, y:  Void main () { Road () }  Spl("In Enter (the values for x, yln"); / x=x+y; y=x-y; x=x-y; | 1+1<br>+3        |
| (i) Scaffolding:  Code produced to support development activities en cluding - Tost hainers, devisery, etules.  (ii) Oracles: - The mechanism that determines trept pars fail ceife na is called as an oracle.  (ii) In order to execute the code-additional code is gen enated. It is as shown below:  Void include < staio. n > int x, y;  Void (n+ Swap(int xx, intry)  Void (Raad C)  ph("In Enter (In Valueter X, yIn");  Void main() (Raad C);  Void main() (Raad C);   | 1+1<br>+3<br>) ) |

|   | T =                                     |
|---|---|
| For the above program the oracle of is built as below! ] is if the values of se, and y are exchanged, then the  | 2                                       |
| 2) else, én failure.  | ======================================= |
| (a) Terminologies used in Datations testing: Let G be a proglaim glaph, V and & be the vertex and edge set nespectively.  1) Desining node: Def(1e, N) & a defining node g a variable reco  |   |
| 2) Usage Node ( rue ( v. 14)): Node n E G ies on ruege node for ver   | į.                                      |
| iff the realise of is resed at the statement fragment n'  | 1×5×5                                   |
| 3) P- Use: - A resage node Use (r.n) is a predicate reje the tree statement in its a decision making node else computed in on ones.   | 5                                       |
| A) D-U path: A D-U path wort a variable ' in a path en<br>Bet q Pathy q G such teat Der (w,m) and Use (12,11)   |   |
| 5) D-C-Path: A D-C path wist a Variable re' is a Dupatry tes re' such that there is no other definition of v' between (5n,n).   | 170                                     |
| Samable patt D-c)?  |   |
| 1) Sum. (4,7) Y   | 8                                       |
| 3) Sum (7,8) y.<br>4) sum (4,8) N   |   |
| 36) Allocation of suspensibilities and Rewarding mes combine  |   |
| > Allocation of Responsibilities;   |   |
| > Allocation of Responsibilities;  * Developen responsible for development preasure cents to com  * Quality team suspensible for quality  |   |
| > Allocation of Responsibilities.  * Developen responsible to development preasure courts to com  * Quality team susponsible too quality  > Possible Effect:  * Development tree to maximize productivity, without consider  * Quality team > will not have exceed and  | 4                                       |
| > Allocation of Responsibilities.  ** Developers responsible for development preasure with Locket *  ** Ovality team suspensible for quality.  > Possible Effect:-  ** Development trees to maximize productivity, without consider for quality.  ** Quality teams will not have enough negative for bood quality.  > Results: Product a bad quality.                 | ty hy                                   |
| > Allocation of Responsibilities.  ** Developers responsible to development preasure cents tocked  ** Occality team suspensible for quality  > Possible Effect.  - Revelopment trees to maximize productivity, without consider  ** Quality team > will not have enough negatives for bad quality  product.  > Responsibility:  Developers sustantible for organists. | ty hy                                   |
| Plan A:  Plan A:  Allocation of Responsibilities:  Developers responsible for development preasure cents to the development preasure cents to the product of the product.  Personal product of bad quality and overall project failure.  Responsibility:                    | 3                                       |

| ALVA'S INSTITUTE OF ENGINEER DEPARTMENT OF INFORMATION    | INC & TECHNOLOGY MOODBIDDI   | 3 1986         |
|---|--|----------------|
| DEPARTMENT OF INFORMATION SUBJECT/ SUBJECT CODE           | ON SCIENCE AND ENGINEERING   |                |
|   | SOFTWARE TESTING /1 FIGG   | l.             |
| MAXIMUM MARKS   | SOFTWARE TESTING/15IS63  | . 1            |
| SOL   | UTION 30   | MADIZO         |
| 1 10st una Analysis VI                                    |  | MARKS          |
|   |  |                |
| > TA plan is detailed document the                        | A All 200 14 1 10 1 100  |                |
|   | at authors the test strategy   | 60             |
| > To build a TA plan we                                   | the fallowing templates:   |                |
| - S   |  |                |
| 1) Analyse tee product > Design                           | Strategy - Detre objective) -> plan  | Fest           |
| Don   | lenvi  | renment        |
| The second of the   | Test Resource planners   |                |
| Deliverables LESHWate Crite                               | ma Parising  |                |
| >Analyze the Donday                                       | toronthy all the set fire  | ls.            |
| The product   |  | 1+81           |
| > who are the Answer                                      |  | N              |
| CIO LA XITE   | 2 + 2 × 2 × 1 × 1 × 1 × 1 × 1  | 8              |
| > what are switten products<br>> Also greview the product | used! How doterey work!  | <i>-</i>       |
| Also greveres the product                                 | documentation.   | -              |
| 1> tevelop a strategy: Use to                             | 0. 1.00  | (4)            |
| a see o   | tre tallociem steps.   |                |
| a) Define the scope Identity                              | y Document Createron   | <b>\</b>       |
| a testing Testing   | The state of the s | <del>}</del> , |
| 9   | The state of the s |                |
|   | £ ' d.   |                |
| B) Defore test objectives: ctep                           | e to be included are:  | 20             |
| a) List out the feartures                                 | to be tested.  | 1              |
| b) Define the faiged   goal                               | of the test bound on tenter  | ting           |
| + Test Costena: It ès a bu                                | 100  | *              |
|   | ules which is based on.  |                |
| a) suspension priteria                                    | and (B) exit criteria.   |                |
| D Resource Danners List 00                                | ut suggisted type and level  | <u> </u>       |
|   | Se Sweet Will  |                |
| & sietourees - Human, Syster                              | n, - gresorerey  |                |
| 110   |  |                |
|   | onment: It's a setrep 9 sul  | HW             |
| werere festing us carried                                 | cent. It concludes - smalter   | ne             |
| and reer environment, phy                                 | sicals envisorment also.   | 21.10          |
| A Cal A la la galination                                  | · · · · · · · · · · · · · · · · · · ·  |                |
| 1) Schedule & Extination.                                 | the state of the s | -              |
| 1) Test deliverables: Follower                            | ing are the deferrent lost   | 1-11-10-010    |
| at every phase of SDLC                                    | Following list o soliveration  | bliveray       |
| generated at (9) Before test                              | CH B Drenny Lesting (C) AL   | extentin       |
| Branch of Ch. Sedan                                       | ) Strains Phys   | or ton a       |
|   |  |                |
|   | *** //   |                |
|   | - personal state of the second   |                |
|   | in the state of th |                |
|   | 1 (1)  |                |
|   | the state of the state of  | 100 /100       |
|   |  |                |
|   |  |                |
|   |  |                |
| I.  |  |                |

|     | SLN Risk Type controlling strategies:  |               |
|-----|--|---------------|
|     | 1.a) personal Rux:   | a +4 (4g) 0+4 |
|     | 2 Loss & staff -> Crosy training the simployees frencher qualified staff -> Continuous education, still gay track track tracks   | a Cillian     |
|     | > render gralified staff > Continuous education, strict gar  | The mis       |
| _   | Trojuga January (11 person)  |               |
| -   | 3> Technology Risk ->  | To Con        |
|     | a thin tout so tedue that a schedule extra   | ine for       |
|     | to renfamiliar Cots of testing renfamiliar interface   | ter ent       |
|     | to renfamiliar Cots testing renfamiliar interface  to TA automation and y Introduce new took in low  try to expected level pilot more eff  |               |
| -   | to expected level pilot projects   | with          |
|     |  | 1000          |
|     | 2) Schedule Risks  |               |
|     |  | team          |
|     | a) Incolognate unit terting } Track & neward then quality leady to delay in integration >  |               |
|     | leady to delay in integration  |               |
|     | N I MILE OF THE PARTY OF THE PA |               |
|     | 4 Development Rests!   | - D           |
|     | manufa come si Manine d  |               |
| _   | a) poor quality sw by developers > provide easy warning of   | <i>i</i> 1    |
| -   | b/Inadequate TA. > Require test coverage Content   | ٦. ·          |
|     | MINAGESTANT IN   |               |
|     | THE RESERVE AND ADDRESS OF THE RESERVE AND ADDRE | 40            |
|     | 5) Test Execution Risks!   |               |
| _   | minimize the most that les   | mi 20         |
|     | > Execution as hyper ( minimize the points that less their planned free full system to be executed   | 1-            |
|     | The state of the s |               |
|     |  | 2.            |
|     | 6) Requisement Rists   | Y             |
| _   | > High assuace contical regle Aurild render entimating test  | -             |
|     | winement increase expenses & eftert by comparison.   | <u> </u>      |
|     | gencertainity  | (-)           |
|     | I The second   |               |
| Τ.  | Test Design decementation for lamazon. in  |               |
| -)0 | The document is expected to and address the tallocueing  | -             |
|     | areas: This include:  a) Title page > Project Name < Name of the item to be tested?  |               |
| _   | The same of the true of the tr | •             |
|     | at platical pariousem + (Ingtonethan)  | SM.           |
|     | L Date > < Security Notice < Kerlewess = CIRS IONER 1014)  | 8 M.          |
|     | < Approvals/Date)  ( Table of Contents   | 8 M.          |
|     | < Approvals/Date)  ( Table of Contents   | %M.           |
|     | Z Date) < Security Notices < Reviewers 2 (278 18 Marions) < Approvals > Contents Table of contents 1) Test design specification Id 2) Contract to be tested  | %M.           |
|     | Z Date) < Security Notices < Kerrewers 2 (278 18 Maring) < Approvals > Date) < Table of contents 1) Test design specification Id 2) Features to be tested 3) Approach Refinement.  | % M.          |
|     | Z Date) < Security Notices < Kerrewers 2 (278 18 Marine) < Approvals > Date) < Table of contents 1) Test design specification Id 2) Features to be tested 3) Approach Refiniment. 4) Test identification.  | % M.          |
|     | Z Date) < Security Notices < Kerrewers 2 (278 18 Maring) < Approvals > Date) < Table of contents 1) Test design specification Id 2) Features to be tested 3) Approach Refinement.  | % M.          |

|           | ALVA'S INSTITUTE OF ENGINEERIN   | G & TECHNOLOGY                        | , MOODB      | IDRI             |           |
|-----------|--|---------------------------------------|--------------|------------------|-----------|
|           | DEPARTMENT OF INFORMATION SUBJECT/ SUBJECT CODE  | SCIENCE AND EN                        | GINEERIN     | G                |           |
|           | MAXIMUM MARKS  | SOFTWAR                               | RE TESTIN    | <b>IG/15IS63</b> |           |
| T T       |  | TION                                  | 30           | N N              |           |
| N N       | Pornciples used in Software  |                                       |              |                  | MARKS     |
| 7         | Software .   | 185ting,                              |              |                  |           |
|           | The principles reseduén se   | 14.0000 tooli                         |              | 7                |           |
|           | - 1/ SCHRIETUITY -> betternfail pire   | ery time than                         | Somet        | imee             | 1         |
| 1         | 2) Restriction-> Malcina tero In   | tentions explici                      | +.           | 11103.           | 24404     |
| +         | 5) Redundancy matcine +  | 14                                    | easer.       |                  | 1 3 WW    |
| +         | 4) Monthson -> Divide and Co   | nguer.                                |              | <i>\</i>         |           |
| +         | 5) Viribility > makeine int  | ormation a                            | ccessik      |                  |           |
| +         | 6) feedback Juning to  | e development                         | tproc        | eg.)             | -         |
|           |  |                                       |              |                  |           |
|           | Explaining any four poin   | nciples                               |              |                  | Same      |
|           |  |                                       |              |                  |           |
| -         | 1  |                                       |              |                  |           |
| +         |  |                                       |              | ,                |           |
| +         |  |                                       |              |                  |           |
| +         |  |                                       |              |                  |           |
|           |  |                                       |              |                  |           |
|           |  |                                       |              |                  |           |
| 1         |  |                                       | _/_          |                  |           |
| +         |  | <del></del>                           | /            |                  |           |
| +         |  | <del></del>                           |              |                  |           |
|           |  |                                       |              |                  |           |
| 1         |  |                                       |              |                  |           |
|           |  |                                       |              |                  |           |
| 1         |  |                                       |              |                  |           |
| +         |  |                                       |              |                  |           |
| +         |  |                                       |              |                  |           |
|           |  | •                                     |              |                  |           |
| 1         |  |                                       |              |                  |           |
|           |  | <u> </u>                              |              | · · · · · · ·    |           |
|           |  |                                       |              |                  |           |
| 4         |  |                                       |              |                  |           |
| +         |  |                                       |              |                  |           |
| +         |  |                                       |              |                  |           |
| $\forall$ |  |                                       |              |                  |           |
| +         | The state of the s | · · · · · · · · · · · · · · · · · · · | <del>\</del> |                  |           |
|           |  |                                       | -            |                  |           |
| J         |  | 11                                    |              |                  |           |
| 1         |  | T <sub>p</sub>                        |              |                  |           |
| 4         |  |                                       |              |                  |           |
| +         |  | <i>i</i> ,                            |              |                  |           |
| +         |  |                                       |              |                  |           |
| +         |  |                                       | AN)          | <u> </u>         | ingering  |
| +         |  | * *                                   | Or 1         | 4.0. D. 8 P      | nginology |
| _         | 10 1   |                                       | 0            | HODEIDRI - 5     | 14 225    |
| 1         |  | 0.4                                   | was maren    | OGIDRI-S         | •         |
| 1         |  | 1.16                                  | 1            | COUP             |           |

|   |  | 4 4   |
|---|--|---|
| DEPARTMENT OF INFORMATION SCIENCE SUBJECT/ SUBJECT CODE | OFTWARE TESTING/15IS63   |   |
| MAXIMUM MARKS   | 30   |   |
| SOLUTION  | - 1  | MARKS   |
| I sat and a E   |  |   |
|   |  | 7   |
|   | The transfer of the state of th | ZM.   |
|   | DELL STRUCTURE   |   |
| Building the data flow diag                             | lam.   | M   |
|   |  |   |
| Exploring the cufferent Componer                        | <b>3</b> 3   | zm.   |
| Diagram   | -  | •   |
| 8   |  |   |
|   |  |   |
|   |  |   |
|   |  |   |
|   |  |   |
| 1) Call Graph. Based IT                                 | 7  | 000   |
|   |  | m   |
|   |  |   |
| Gyala na tha Diage                                      |  |   |
| esparación Adjugany                                     |  | <u>M.</u>   |
|   |  |   |
| 4)  |  |   |
|   |  |   |
| Describing the System.                                  | 3  | M   |
| Deviler: 1 45 CON 11 ( 5 M C                            |  |   |
| · izarony the FSM for SATI                              | <u>~</u>   | Μ,  |
|   |  |   |
|   |  |   |
|   |  |   |
| Building the partial Docarps                            | ation Tree 3   | M.  |
|   |  |   |
| Edentifying the woundly confe                           | Mench.   | Mr.   |
| 01'0 00 a ma  | 24   | 1.  |
| Diogram.  |  |   |
|   |  |   |
|   |  | M.  |
| identitions the system threads &                        | Gene requirement   |   |
| specification - Explanation                             |  | M   |
| * system Thready  |  |   |
| * Integration Unlean                                    |  |   |
| 0.0.0   |  |   |
| George & Engineering & Engineering                      |  |   |
| Visionalogy and to shake a serial                       |  |   |
|   | BUILDING the partial Docapos  Describing the System threads of the System Thread  Definition the System threads  Definition the System threads  Definition the System threads  Definition the System threads  The System Thread   | SOLUTION  SOLUTION  SOLUTION  List out any Fores different features.  2 x y  Building the data flow deaglang.  Explaining the different Components.  Diagram  Describing the deferent Components.  2) parts Based IT  3) Bottom up and Top Down approaches  Explaination Diagramy  Describing the System.  Quilding the FSM for SATM  (e)  Countrying the garded Documpation Tree  Countrying the garded Composition Tree  Countrying the garded Composition Tree  Countrying the garden threads their requirement  Spectrating the System threads their requirement  Spectrating the System threads  A Julyation disease |

| at to Cloude   | Zem       |
|--|-----------|
| Describing the process of call gloph building  |           |
| and the second of the color  | ung       |
| Emplaining the peoplasm embol flow   |           |
| · · · · · · · · · · · · · · · · · · ·  |           |
| 1 Deliver 10 minologies amoriated celles   |           |
| Definere Various Terminologues anociated celetis   | ung       |
| mm buth Testing  | 7 1       |
| 1 1 0 10 05 2018   | 3M        |
| Derawing the graph for the text can 19-05-2018   |           |
|  |           |
| Line and The second of the sec |           |
|  |           |
|  |           |
|  |           |
|  | - (E      |
|  |           |
|  | \$ 177    |
|  |           |
|  | <b>-</b>  |
| The state of the s |           |
|  |           |
|  |           |
|  | 10        |
|  | -//1      |
|  | 1 (b) (c) |
|  | 4         |
|  | / / /     |
|  | . 19      |
|  | -         |
| v v  | + 1       |
|  | Te (5     |
|  |           |
|  |           |
|  |           |
|  |           |
|  |           |
|  | 11/1      |
|  |           |
|  | - 1       |
|  |           |
|  |           |
| H.O.D.   |           |
| FACULTY INCHARGE  Dept. Of Information Science & Engineering  Alva's Institute of Enfleth Control of Y  Mijar, MOODBIDRI - 574 225   |           |
| Tab A Section V  |           |

### VI SEMESTER ISE - RESULT ANALYSIS : AUGUST 2018

| <u> </u> |            | - NEOGET ANALES                    |    | 156661   | - × | 1  | 5CS65 | , 7 |    | 15156 | ,   |    | 15IS6         | 53  | Г  | 15CS6         | 64  | Π  | 15CS64 | l I           |    | 15ISL67 |                 |          | 15ISL6 |               | Grand  |           |        |
|----------|------------|------------------------------------|----|----------|-----|----|-------|-----|----|-------|-----|----|---------------|-----|----|---------------|-----|----|--------|---------------|----|---------|-----------------|----------|--------|---------------|--------|-----------|--------|
|          |            | NAME OF THE STUDENT                |    | 15CS61   | _   |    | SS    |     |    | FS    |     |    | ST            | -   | F  | YTH           | ON  |    | os     |               |    | ST LAE  |                 |          | FS LA  |               | Total  | Act-%     | RESULT |
| SI. No   | USN        | NAME OF THE STUDENT                | IA | Ex       | тот | IA |       | тот | IA | Ex    | тот | IA | Ex            | тот | IA | Ex            | тот | IA | Ex     | тот           | IA | Ex      | TOT             | IA       | Ex     | <b>TOT</b> 78 | 502    | 62.75     | FC     |
| 1        | 4AL15IS001 | AISHWARYA J SHETTY                 | 20 | 35       | 55  | 18 | 28    | 46  | 18 | 40    | 58  | 17 | 32            | 49  | 17 | 44            | 61  | 17 | 49     | 66            | 19 | 70      | <u>89</u><br>91 | 16<br>17 | 55     | 72            | 453    | 56.63     | SC     |
| 2        | 4AL15IS006 | ANVAYA KINI                        | 19 | 38       | 57  | 15 | 33    | 48  | 15 | 28    | 43  | 15 | 29            | 44  | 18 | 30            | 48  | 16 | 34     | 50            | 18 | 73      | 96              | 20       | 78     | 98            | 149    | Section 1 |        |
| 3        | AALISIS007 | CHANDAN RAMESH SHASTRE             | 19 | 47       | 66  | 15 | 28    | 43  | 16 | 38    | 54  | 16 | 46            | 62  | 18 | 65            | 83  |    |        | Anna market   | 20 | 76      | 97              | 18       | 73     | 91            | 617    | 77.13     | FCD    |
| 4        | 4AL15IS008 | DEEPASHREE V                       | 20 | 52       | 72  | 19 | 60    | 79  | 18 | 42    | 60  | 18 | 58            | 76  | 20 | 47            | 67  | 19 | 56     | 75            | 20 | 77      | 97              | 17       | 64     | 81            | 504    | 63.00     | FC     |
| 5        | 4AL15IS009 | GANESH PRASAD E                    | 19 | 44       | 63  | 17 | 30    | 47  | 15 | 28    | 43  | 16 | 45            | 61  | 19 | 49            | 68  | 16 | 28     | 44            | 20 | 70      | 90              | 16       | 64     | 80            | 637    | 79.63     | FCD    |
| 6        | 4AL15IS011 | HARSHITHA K O                      | 20 | 65       | 85  | 20 | 45    | 65  | 19 | 51    | 70  | 18 | 68            | 86  | 19 | 68            | 87  | 19 | 55     | 74            | 20 | 74      | 93              | 17       | 57     | 74            | 589    | 73.63     | FCD    |
| 7        | 4AL15IS012 | KAVANA M G                         | 20 | 63       | 83  | 17 | 37    | 54  | 19 | 47    | 66  | 18 | 62            | 80  | 17 | 52            | 69  | 19 | 51     | 70            | 19 | 70      | 90              | 17       | 64     | 81            | 547    | 68.38     | FC     |
| 8        | 4AL15IS015 | MINAL PINTO                        | 20 | 43       | 63  | 19 | 52    | 71  | 19 | 42    | 61  | 18 | 42            | 60  | 18 | 36            | 54  | 17 | 50     | 67            | 20 | 70      | 88              | 19       | 59     | 78            | 576    | 72.00     | FCD    |
| 9        | 4AL15IS016 | MYTHRI K J                         | 20 | 52       | 72  | 19 | 60    | 79  | 18 | 41    | 59  | 17 | 62            | 79  | 18 | 29            | 47  | 17 | 57     | 74            | 18 | 73      | 90              | 16       | 55     | 71            | 528    | 66.00     | FC     |
| 10       | 4AL15IS017 | NIKSHITHA                          | 20 | 43       | 63  | 16 | 39    | 55  | 18 | 48    | 66  | 18 | 47            | 65  | 17 | 38            | 5.5 | 19 | 44     | 56            | 18 | 68      | 86              | 16       | 55     | 71            | 465    | 58.13     | SC     |
| 11       | 4AL15IS018 | NISHA                              | 19 | 32       | .51 | 17 | 29    | 46  | 16 | 31    | 47  | 16 | 41            | 57  | 16 | 35            | 51  | 18 | 38     | 51            | 18 | 67      | 85              | 16       | 53     | 69            | 194    | 61.75     | FC     |
| 12       | 4AL15IS020 | PAVAN KUMAR M R                    | 20 | 48       | 6.8 | 17 | 38    | 45  | 17 | 39    | 56  | 15 | 5.1           | 7.0 | 16 | 32            | 48  | 16 | 39     | 55            | 20 | 56      | 76              | 15       | 52     | 67            | 496    | 62.00     | FC     |
| 13       | 4AL15IS022 | POOJA                              | 16 | 45       | 61  | 16 | 34    | 50  | 16 | 30    | 46  | 17 | 57            | 74  | 18 | 49            | 67  | 16 |        | -             |    |         | 81              | 17       | 51     | 68            | 533    | 66.63     | FC     |
| 14       | 4AL15IS023 | POOJA GANGADHARA HEGDE             | 18 | 41       | 59  | 17 | 39    | 56  | 18 | 45    | 63  | 18 | 56            | 74  | 17 | 52            | 69  | 19 | 44     | 63            | 20 | 61      |                 |          |        |               |        |           | FC     |
| 15       | 4AL15IS024 | POOJA R                            | 20 | 42       | 62  | 18 | 30    | 48  | 19 | 53    | 72  | 17 | 65            | 82  | 18 | 30            | 48  | 18 | 45     | 63            | 20 | 59      | 79              | 19       | 53     | 72            | 526    | 65.75     |        |
| 16       | 4AL15IS025 | POOJA T S                          | 20 | 69       | 89  | 19 | 37    | 56  | 18 | 43    | 61  | 18 | 60            | 78  | 18 | 46            | 64  | 18 | 41     | 59            | 20 | 72      | 92              | 16       | 51     | 67            | 566    | 70.75     | FCD    |
| 17       | 4AL15IS026 | POOJITHA                           | 18 | 57       | 75  | 15 | 34    | 49  | 19 | 53    | 72  | 16 | 62            | 78  | 17 | 45            | 62  | 18 | 53     | 71            | 20 | 77      | 97              | 16       | 67     | 83            | 587    | 73.38     | FCD    |
| 18       | 4AL15IS027 | PRAJNA M                           | 19 | 33       | 52  | 20 | 40    | 60  | 20 | 46    | 66  |    | 35            | 53  | 18 | 28            | 46  | 17 | 38     | 55            | 19 | 70      | 89              | 16       | 54     | 70            | 491    | 61.38     | FC     |
| 19       | 4AL15IS031 | RACHANA S                          | 20 | 53       | 73  | 19 | 47    | 66  | 19 | 46    | 65  | -  | 57            | 73  | 19 | 40            | 59  | 17 | 34     | 51            | 20 | 72      | 92              | 19       | 53     | 72            | 551    | 68.88     | FC     |
| 20       | 4AL15IS036 | SAMEEKSHA HEGDE                    | 19 | 33       | 52  |    |       |     | 17 | 43    | 60  | 16 | 31            | 47  | 16 | 28            | 44  | 15 | 28     | 43            | 19 | 78      | 97              | 15       | 54     | 69            | ¥ 16 1 | 进位16      |        |
| 21       | 4AL15IS038 | SHAZIYA BANU                       | 17 | 31       | 48  | 18 | 40    | 58  | 15 | 32    | 47  | 15 | 50            | 65  | 16 | 29            | 45  | 16 | 39     | 55            | 18 | 72      | 90              | 16       | 60     | 76            | 484    | 60.50     | FC     |
| 22       | 4AL15IS041 | SHETTY VIGNESH SURESH              | 20 | +        | 80  | 17 | 43    | 60  | 20 | 64    | 84  | 18 | 58            | 76  | 20 | 59            | 79  | 16 | 40     | 56            | 20 | 78      | 98              | 20       | 78     | 98            | 631    | 78.88     | FCD    |
| 23       | 4AL15IS043 | SRINIVAS S                         | 20 | -        | 77  | 14 | 37    | 51  | 15 | 41    | 56  |    | 51            | 66  | 16 | 50            | 66  | 18 | 32     | 50            | 19 | 60      | 79              | 12       | 40     | 52            | 497    | 62.13     | FC     |
| 24       | 4AL15IS044 | SUKANAYA VIRUPRAKASHI<br>MADIWALAR | 17 | 40       | -   |    | _     |     | _  | -     | 50  |    | _             |     |    | $\rightarrow$ | -   | 14 | 43     | 57            | 18 | 70      | 88              | 16       | 66     | 82            | 487    | 60.88     | FC     |
| 25       | 4AL15IS045 | SUSHMITHA H S                      | 18 | 51       | 69  | 18 | 43    | -   | 18 | _     | 60  | 18 | _             | 65  | 18 | 48            | 66  | 15 | 49     | 64            | 18 | 76      | 94              | 16       | 60     | 76            | 555    | 69.38     | FC     |
| 26       | 4AL15IS046 | SWARNA GOWRI R S                   | 20 | 45       | 65  | 19 | 42    | 61  | 19 | 46    | 65  | 17 | -             | 65  | 20 | 47            | 67  | 18 | 41     | $\rightarrow$ | 20 | 77      | 97              | 16       | 56     | 72            | 551    | 68.88     | FC     |
| 27       | 4AL15IS047 | THAIZEERA A S                      | 20 | 49       | 69  | 19 | 38    | _   | 19 | 45    | 64  | 18 | -             | 68  | 17 | 33            | 50  | 19 | 68     | 87            | 19 | 77      | 96              | 19       | 52     | 71            | 562    | 70.25     | FCD    |
| 28       | 4AL15IS049 | VISHAL NAIK N                      | 18 | $\vdash$ | 64  | 17 | 37    | 54  | 16 | 50    | 66  | 15 | $\rightarrow$ | 60  | 16 | _             | 52  | 16 | 42     | 58            | 19 | 70      | 89              | 16       | 66     | 82            | ,525   | 65.63     | FC     |
| 29       | 4AL151S050 | VISHWATH PUTTI                     | 18 | 50       | 68  | 1  |       |     | 15 | 36    | 51  | 17 | 41            | 58  | 17 | 28            | 45  | 15 | 29     | 44            | 19 | 76      | 95              | 15       | 42     | 57            |        |           | No.    |

No. of fails % of Pass

**Faculty Name** 

|                         |                   | RESULT A        | NALYSIS IS                  | SE VI SEM-          | AUGUST 201      | 18                          |                |
|-------------------------|-------------------|-----------------|-----------------------------|---------------------|-----------------|-----------------------------|----------------|
| CN & C                  | SS                | FS              | ST                          | PYTHON              | os              | ST LAB                      | FS LAB         |
| 0                       | 2                 | 0               | 0                           | 0                   | 1               | 0                           | 0              |
| 100.00                  | 93.10             | 100.00          | 100.00                      | 100.00              | 96.55           | 100.00                      | 100.00         |
| Mrs. Swapna<br>Laxmi K. | Ms. Kaveri B Kari | Mrs. Divya Ravi | Mr. Sudarshana<br>Kerenalli | Mr.Manjunath H<br>R | Dr.Roopalakshmi | Mr. Sudarshana<br>Kerenalli | Mrs. Divya Rav |

| Class Topper:                 | HARSHITHA K O (4AL15IS011) |
|-------------------------------|----------------------------|
| First Class with Distinction: | 8                          |
| First Class:                  | 16                         |
| Second Class:                 | 2 **                       |
| Mc. et Fails :                | 2                          |
| % of Pass :                   | 89.66                      |

| AIET        | VI sa        | Lesson Plan  | & Exe      | ecution                                 | no."<br>Inpies to the coupli                       | Format<br>Issue N<br>Rev. No | No., 01 |                                       |
|-------------|--------------|--|------------|---|--|------------------------------|---------|---------------------------------------|
| Name of the | ne faculty   |  | Su         | udansha                                 | ena.K  | 4                            | !       |                                       |
| Semester    | and Section  | on   | E'         | 7-25E                                   | Σ.   | -74                          | V66.1   | .3                                    |
| Date of Co  | mmencen      | nent   | 05         | -02-2                                   | 018  |                              |         |                                       |
| Last Work   | ing Day of   | the Semester   | 23         | -05-2                                   | 018  |                              |         | 4                                     |
| Source Ma   | aterials Lis | t  |            |   |  |                              | **      | · · · · · · · · · · · · · · · · · · · |
| 1. Paul     | (c. 700      | igensen;   |            |   | sting : A cro                                      |                              |         |                                       |
|             |              | se, micheal  | Soft       | wore Tes                                | reschach Pull<br>ting and Am<br>churques—W         | Lysis.                       | -proces | s painti                              |
| 3. Adit     | p. M         | Ruto   | form       | idations                                | s of softwar                                       | one T                        | esting  | <u>\</u>                              |
| 4. Ren      |              |  |            |   | sting - 2nd  | Edit                         | ion - 2 | 004                                   |
| 5.          | 7.           |  |            | +                                       |  |                              | set/    | rite.                                 |
| Subject N   | ame S        | oftware Te   | sti        | ng -                                    | 15263  |                              |         |                                       |
| 7           |              | Plan   |            |   | 14 19 14   | Executi                      | on      | 71.1                                  |
| Period      | Date         | Topics to be covere  | ed         | Source<br>Material<br>needed            | Topics Cove  | ered                         | Date    | Source<br>Materia<br>Referre          |
| 1 1         | 302          | Basics of swite<br>Basic definitions<br>swowality, Regu<br>ents,<br>Behaviors and corre        | s,<br>Wern | 2 1 1 1 1 1 1 V                         | Basics q<br>> Basic s<br>+ions.<br>> Sw qual       | Defini                       | 92°     | 11                                    |
| 2           | 6/02         | Correct new vy Re<br>Lity<br>Testing & Delangs<br>Test coses<br>In signiff from V<br>alragram. | ing        | And a                                   | > Requirem<br>Behavior, of<br>program con<br>nees. | rents,                       | 12      | 135                                   |
| 3           | 1/02         | 2 dentifying a te<br>case.<br>Test goneration<br>Strategies.<br>Test Michic                    | ^          | they in the second                      | > Correct vs Reliab > Testing debugging            | and                          | st?     | 13                                    |
| 4           | 2/02         | Error and F<br>taxonomies.<br>Levels g test  | ault       | 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | > Insights<br>venn diese<br>> Test me              | mam.                         | 04/2    | 11                                    |

|        | T    | Plan  | M                            | Execu   | tion    | A CONTRACTOR OF THE PARTY OF TH |
|--------|------|---|------------------------------|---|---------|--|
| Period | Date | Topics to be covered  | Source<br>Material<br>needed | Topics Covered  | Date    | Source<br>Material<br>Referred   |
| 5      | ₹×/  | Testing & Venficati   |                              | > Identitying a test<br>coses,<br>> rest generation<br>8 trategress | 09/2    | Ū  |
| 6      | 12/2 | static Testing  | seig                         | > Jest methics  | 14/2    | T3   |
| 1      | 18/2 | Problem statements.<br>Generalized<br>preside code                        | 1                            | fault taxonomy  | 15/2    | TI   |
| 8      | ,વીજ | The triangle problem<br>Next-Date Function                                |                              | Levels & Testing ve vention   | (1)     | 71,73  |
| 9      | 20/2 | Commission problem<br>Quidelines &<br>esservations                        |                              | alakin Touting  |         | $\mathbb{G}^{ \mathcal{T} }$   |
| 10     | 2/2  | SATM problem,<br>Converey conviter<br>sotum windshed                      |                              | Worland   | 21/2/14 | TI   |
| ) f    | 22/2 | Module -2: Boundary volue avalyses Robistry                               | TIT2                         | commission prob<br>lem, and<br>Next pate<br>problem.                | 23(2    | À(   |
| 12     | 26/2 | case-Testing, worst-<br>Robust wast case test                             | AT I                         | Guidelines and<br>Observations.<br>SATM, and Others.                | 2/2     | FL   |
| 13     | 3/2  | ngter Triongle, Next<br>Date and commissi<br>on problem.                  | j.                           | module-2°. Black-Box Testing.                                       | 2/2     | .TC  |
| 14 .   | 2/2  | Equivalance classes:<br>Equivalance test cases<br>for the triangle proble |                              | Boundary<br>balus Analysis  | 2/2     | FI   |
| 15     | 2/3  | m, Next Date Function, and commission problem. Douston touse              | ¥ .                          | Worst, Robust-<br>worst cose Testing,<br>Guidelines,                | 1×12    | 151  |
| 16     | 5/3  | Guidelines and<br>Observations.<br>Fault Bored Testing!                   | y.                           | Examples Examples   | a 3     | <b>V</b>   |
| 14.    | 43   | Overview,<br>Assumptions,<br>mutation analysis                            | - J-                         | Equivalence<br>Class<br>Testing.                                    | ort3    | A  |

|        |       | Plan  |                              | Execut   | on   |                                |
|--------|-------|---|------------------------------|--|------|--------------------------------|
| Period | Date  | Topics to be covered  | Source<br>Material<br>needed | Topics Covered                                 | Date | Source<br>Material<br>Referred |
| 18     | **3   | Fault based Adagu<br>cy costoria.   | q                            | Derivation of<br>Test cases for<br>1) Friangle | 65/3 | 1                              |
| 19     | 23    | Vociations on mutation Analysis   |                              | program, 2) Commission                         | 64/3 | 71                             |
| 20     | ,X3   | Revision  |                              | 3) Next Pate                                   | 07/3 | 72                             |
| 2      | 30    | module-3:<br>Structural Testing   | 7152                         | Decision Table Approach!                       | 1    | 41                             |
| 22     | ,u/3  | Overview,<br>statement Testing<br>> Branch testing<br>> Condition testing           |                              | > DT for she<br>problem.<br>> DT for New       | 12/3 | TI                             |
| 23     | 43    | > Condition testing;<br>> Path testing;<br>> DD paths;<br>> Test coverage metric    | 1 1 1 1                      | > Guidelines & objection                       | 13/2 | 71                             |
| 24     | 1,013 | > Basis path testing<br>> Guidelines and obsertions,<br>> Data flow testing.        |                              | Fault Barro                                    | 14/7 | 72                             |
| 25     | 2/3   | > Slike based Testing<br>> Glike based Testing<br>> Guidelines and<br>observations. |                              | mutation<br>Analysis<br>Variables Imm          | 15/3 | 72                             |
| 28     | 2/3   | > Test execution:<br>> Duesview<br>> Test case specifical<br>anto test cases.       | <i>(</i> 7                   | Module-g:<br>process are                       |      | Ta                             |
| ফ্র    | 2/3   | > Scattolding<br>> Geneste NS Specifi<br>Scattolding                                |                              | Baste principle                                | 19/3 | 12                             |
| 28     | 243   | > Test cracles. > Selt cheeles as oracles. > Capture & Reply.                       | A                            | - Quality Process                              | 20/3 | 12                             |
| 29     | 214   | >test execution   | , III                        | > Bradity<br>Goods + Depend<br>bility;         | 21/- | 72                             |
| 30     | 3/4   | > Date flow testing   | n dig                        | >Improving                                     | 22/3 | 42                             |

\*

|            | 1     | Plan   |                              | Execu  | ition |                              |
|------------|-------|--|------------------------------|--|-------|------------------------------|
| Period     | Date  | Topics to be covered   | Source<br>Material<br>needed | Topics Covered                               | Date  | Source<br>Materia<br>Referre |
| 31         | 414   | modules: Process   | 12                           | Improving the process.                       | 23/3  | 72                           |
| 32         | 6/4   | 1) Bastc principles.<br>2) The quality<br>process.                                     | 12                           | organizational                               | 214   | T2                           |
| 33         | 9/4   | 3) glaculity goals. 4) Dependability properties.                                       | T2                           | AT strategies                                | 2)4   | F2                           |
| 324        | هاط   | 5) Analysis Testing 6) Improving the process.  | 72                           | Risk planning                                | 314   | T2                           |
| <b>ઝ</b> ડ | 119   | 7) Organizational factors.   | T2                           | Risk planning                                | 4/4   | 72                           |
| 36         | 12/4  | Planning and Monitorsing the process.  8> Quality and                                  | 12                           | monitoring ten procen.                       | 514   | T2                           |
| 31         | 16/4  | processes<br>9> Test and analy<br>sis strategies, plan                                 | 72                           | Improving the process.                       | 10/4  | 72                           |
| 33         | 14/4  | 10) Risk planning,<br>monitoring the<br>process.                                       | 72                           | Quality Team                                 | 10/4  | 72                           |
| 39         | ,0/4  | 11) Improving proces,<br>127 Quality teams.  | T2                           | Documentation<br>Organizing the<br>documents | 11/4  | T2                           |
| 40         | alu   | Documenting<br>Analysis & Test<br>13) Opanizing documents<br>14) Test analysis reports |                              | plana pocuments                              | 12/4  | T2                           |
| 41         | , 3/4 | module-5. Integration and component Boad Text  | TITY.                        | Specification<br>Documents.                  | ,314  | 72                           |
| 42         | velve | 2) Testing - Components agreembling.   | 11,92                        | Report Downe                                 | 18/4  | T2                           |
| 43         | 5/4   | System acceptance and regression testing   | 11,52                        | Report-Test.<br>Analysis.                    | 19/4  | T2                           |

•

|        |      | Plan   |                              | Execution   | on    |                                |
|--------|------|--|------------------------------|---|-------|--------------------------------|
| Period | Date | Topics to be covered   | Source<br>Material<br>needed | Topics Covered  | Date  | Source<br>Material<br>Referred |
| 44     | ælu  | 4) Regression test<br>selection strategies.<br>9. Test cax principital<br>ion & selective chew | 11,72                        | module-5 Integration & System Testing.                      | 2014  | 1291                           |
| 45     | 02/5 | Devels q testing<br>of Traditional view g<br>testinglevels.                                    | -100                         | Interpolicy<br>Strategyles.                                 | 23/4  | 1751                           |
| 46     | 0315 | 7) Alternative-life<br>cycle modely.<br>8) SATM System.  | 11,92                        | Josting the components &                                    | 23)[4 | 91,52                          |
| 47     | 07/5 | 9) Separating<br>integration and<br>system testing.  | 91,72                        | assemblies.   | 24)4  | 11,72                          |
| 48     | 08/5 | 10) Acloser look ast<br>SATM System.   | 11,52                        | System Accepta<br>-nce Testing.                             | 27/14 | 11172                          |
| 49     | 09/5 | 11) Decomposition bases<br>12) call-graph bay  | 11112                        | Respection Testing.   | 30 14 | F1,72                          |
| So     | iols | B) path based<br>Integrations.   | 11,52                        | Test case prioritization                                    | 30 KH | T.1,72                         |
| 51     |      |  |                              | execution.  | 03/5  | T),T2                          |
| 52     |      | w.   |                              | Levels greating   | 1     | 11,52                          |
| 53     |      |  |                              | view of the testing bevels                                  | 4/5   |                                |
| ΔY     | ų te |  |                              | > Alternative cycle models                                  | 4/5   | 11,52                          |
| 22     |      |  |                              | 7.SATM-Syst   | en8/5 | 11,72                          |
| 56     | 1    |  |                              | Separating Interesting Later<br>lation of States<br>Testing | 9/5   | 11,52                          |

|           |         | Plan                 |                              | Execut                                  | tion |                                |
|-----------|---------|----------------------|------------------------------|---|------|--------------------------------|
| Period    | Date    | Topics to be covered | Source<br>Material<br>needed | Topics Covered                          | Date | Source<br>Material<br>Referred |
| 57        |         | 1                    |                              | ACLOSER look<br>at SATM.                | 1/01 | 11,                            |
| <b>58</b> | i J     | Y                    | 1 4                          | Decomposition<br>based integrati<br>on. | 1/2  | TI                             |
| 59        | ij.<br> |                      |                              | Call-graph<br>Bord into Statio          | 3195 | 71                             |
| 60        | r-/     |                      |                              | Path Based<br>Internation.              | 14/5 | 71                             |
| 61        | nation. |                      | ,                            | Test-cosse!<br>NextPorte                | 5/5  | 71                             |
| jest.     |         |                      |                              | Analysis<br>Exam-                       | 6/12 | T                              |
| 62        | 1       |                      |                              | He Revision q.<br>Went Pate<br>pregian. | 2214 | 77                             |
|           | L       |                      | 7                            | •                                       |      |                                |
| A         |         | - <u> </u>           |                              |   |      |                                |
|           |         |                      |                              |   |      |                                |
| -         |         |                      |                              |   |      |                                |
|           |         |                      |                              |   |      |                                |
| ,         |         | , -                  |                              | ,                                       |      |                                |

| Others                                     | Planned       | Actu  | al Remarks :           |  |
|--|---------------|-------|------------------------|--|
| Special Classes                            | Ω2_           | 06    |                        |  |
| Tutorials                                  | Officer       | 01/10 | reek                   | and the state of t |
| Assignments                                | 5             | 2     |                        | A SERVICE OF SERVICE   |
| Seminars                                   | _ / :         | 19    | *   1                  | <u> </u>   |
| A Tests                                    | 03            | 03    | 3.81                   | 14<br>44.5 a a   |
| Portions Covered in the entire<br>Semester | 100 %         | 7 t   | the Syllobus.          | - 1  |
| Course Effectiveness Students Feedback     |               |       |                        | M IV   |
|  |               |       |                        |  |
| Students Responce                          |               |       | 4 1 4 14 14            | agents on  |
|  | No. of Studen | ts AP | No. of Students Passed | % of Result  |
| Students Responce Result                   | No. of Studen | ts AP | No. of Students Passed | % of Result  |
|  | No. of Studen | ts AP | No. of Students Passed | % of Result  |

#### ALVA'S INSTITUTE OF ENGINEERING

MIJAR

AND TECHNOLOGY

100DBIDRI - 574 225

Class: 6th Sem - ISE Subject: Software Testing.

ATTENDANCE CUM INTERNAL

lubject

| No.        | of Classes hel | d: 64              |    |    |    |     | T  |    |     |     |     | I  |    |     |    |    | T    |     |     |               |     |      | _             |      |            |               | _      | _        |      | y.,   |    |
|------------|----------------|--------------------|----|----|----|-----|----|----|-----|-----|-----|----|----|-----|----|----|------|-----|-----|---------------|-----|------|---------------|------|------------|---------------|--------|----------|------|-------|----|
|            |                | Date / Month       | 05 | 06 | 64 | 05  | 원  | 些  | K   | 19  | 32  | 21 | 23 | 24  | 气  | 皇  | 8    | b   | 3   | 5             | 8   | 多    | ,<br>U        | 2    | 3 1        | 2/1           | Shi    | 219      | 12   | 21    | S  |
| SI.<br>No. | U.S.N.         | Name               | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   |     | -   |               |     |      | -             |      |            | _             | 5 2    | 6 27     | 28   | 29    | 30 |
| 1          | 10             | AISHWARYA J SHETTY | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | ю  | 11 | 12  | 13 | ૧૫ | 15   | 6   | 17  | 18            | 19  | 20 : | 21            | 227  | 3 2        | 4             | Aa     | 726      | 9=   | 28    | A  |
| 2          | 016            | ANVAYA KINI        | ı  | 2  | 3  | 4   | 5  | L  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   |     |     | $\overline{}$ | _   | _    | $\overline{}$ | _    | _          | _             | _      |          |      | 25    | 1  |
| 3          | 07             | CHANDAN R.SHASTRI  | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | İD | 11 | 12  | 13 | 14 |      | -   | -   | $\neg$        | _   | -    |               | _    | _          | $\overline{}$ |        | _        | 1    | 28 2  |    |
| 4          | 08             | DEEPASHREE V       | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   |     | -   | $\neg$        |     |      | _ 1           |      | _          | $\overline{}$ | $\neg$ |          |      | 29 3  | -  |
| 5          | 99             | GANESH PRASADE     | 1  | 2  | 3  | 4   | 5  | C  | 7   | 8   | 9   | 10 | "  | 12  | 13 | 14 | 12   | Н   |     |               |     |      |               |      |            |               |        |          |      | 28    |    |
| 6          | 11             | HARSHITHA KO       | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 89  | 8   | 9  | 10 | IJ  | 12 | 13 | 2    |     | _   | $\overline{}$ | _   |      | -             | ~    |            | _             |        |          | 1    | 272   |    |
| 7          | 12             | KAVANA M. G        | ı  | 2  | 3  | 4   | 5  | ٤  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 |      |     |     |               |     |      |               |      |            |               |        |          |      | 28 2  |    |
| 8          | 15             | MINIAL PINTO       | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | 10 | ij | 12  | 13 | 14 | 15   | 6   | 7   | 8             | 14  | 20 2 | 1 2           | 22   | 32         | 42            | - 2    | 627      | 21   | 29 1  | 20 |
| 9          | 16             | MYTHRI KJ          | 1  | 2  | 3  | 4   | 5  | 8  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 |      |     |     |               |     |      |               |      |            |               |        |          |      | 29 3  |    |
| 10         | 17             | NIKSHITHA.         | 1  | 2  | 3  | 4   | 5  | ۵  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 |      |     |     |               |     |      |               |      |            |               |        |          |      | 28 2  |    |
| 11         | 18             | NISHA              | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | 10 | 1  | 12  |    |    |      |     |     |               |     |      |               |      |            |               |        |          |      | 29 3  |    |
| 12         | 20             | PAVANIKUMAR M.R    | 1  | 2  | 3  | ų   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  |    |    |      |     |     | -             |     |      |               |      |            |               |        |          | -    | 282   |    |
| 13         | 22             | AZOOG              | )  | 2  | 3  | વ   | 5  | 6  | 7   | 8   | 9   | 10 | 41 | 12  | 13 |    |      |     | _   | _             |     |      | _             | _    | _          | _             | _      |          |      | 29 30 | _  |
| 14         | 23             | POSJA G. HEGDE     | ١  | 2  | 3  | ч   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   | Ь   | 17  | 8             | 19: | 0 2  | 1 2           | 1 2  | 3 2        | 4 25          | - 26   | 23       | 28 2 | 19 30 | 0  |
| 15         | 24             | POOJA R.           | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   | 6   | 17  | 8             | 19  | 20 2 | 12            | 2 2  | 3 24       | 1             | 2      | A        | 26   | 17 2  | 8  |
| 16         | 25             | PosJA T.S          | 1  | 2  | 3  | ч   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  |    |    | 1000 |     |     |               |     |      | $\neg$        |      |            |               |        | 17       |      |       | 10 |
| 17         | 26             | D00317+14.         | ı  | 2  | 3  | ų   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   | 14  | 17  | 8             | 19  | 202  | 1 2           | 2 2  | 3 24       | ( 2           | 5 24   | 23       | 58   | 29 20 | ь  |
| 18         | 27             | PRAJINA M          | ţ  | 2  | 3  | Le. | 5  | ٤  | 7-  | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   | ٦   | 17  | 18            | 9   | 20 2 | 1 2           | 2 2  | 321        | 125           | 26     | 27       | 28   | 2931  | 0  |
| 19         | 75             | RACHANA S          | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   | 16  | 17  | 4 1           | 8   | 92   | 0 2           | 12   | 2 23       | 24            | 25     | 26       | 27 7 | 8 2   | 9  |
| 20         | 36             | SAMEEKSHA HEGDE    | ,  | 2  | 3  | 4   | 5  | 6  | 7   | ۶   | 9   | 10 | tl | 12  | 13 | 14 | 15   | 61  | 71  | 8             | 19  | 202  | 12            | 22   | 3 21       | 25            | 5 26   | 27       | 28 7 | 20    | 1  |
| 21         | 38             | SHAZIYA BANU       | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | 10 | 71 | 12  | 13 | 14 | 15   | 6   | 7   | A             | n   | A    | 20 3          | 8 10 | 20         | 21            | 22     | 23       | 242  | 521   | 5  |
| 22         | 41             | SHETTY VIGNESH     | 1  | 2  | 3  | Ÿ   | 5  | 6  | 7   | 8   | 9   | 16 | 11 | 12  | 13 | A  | A    | 41  | 5   | 6             | 7   | 810  | , 2           | 02   | 12         | A             | 23     | A        | 242  | 5 26  |    |
| 23         | 43             | SRINIVAS S         | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   | 61  | 7 1 | 8 1           | 9   | 202  | 125           | 2 29 | 3 4        | ×             | 25     | 26       | 17   | 18 29 | 1  |
| 24         | 45             | 2.4 . AHTIM HEOR   | ١  | 2  | 3  | ιų. | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 | 15   |     |     |               |     |      |               |      |            |               |        |          |      | 9 2.1 |    |
| 25         | 46             | SWARNA GOWRIRS.    | ١  | L  | 3  | a   | 5  | 6  | 4   | 8   | 9   | 10 | Ħ  | 12  | 13 | ıų | 15   |     |     |               |     |      |               |      |            |               |        |          |      | 8 29  |    |
| 26         | 47             | THAIZEERA.A.S      | ١  | 2  | 3  | 4   | 5  | 6  | 7   | A   | 8   | 9  | 10 | 11  | 12 | 13 |      |     |     |               |     |      |               |      |            |               |        |          |      | 8 29  |    |
| 27         | 49             | VISHALMAIK, N      | 1  | 7  | 3  | ч   | 5  | 6  | 7   | 8   | 9   | 10 | 11 | 12  | 13 | 14 |      |     |     |               |     |      |               |      |            |               |        |          |      | 9 36  |    |
| 28         | 50             | ITTUG HTAWHZIV     | ١  | 2  | 3  | 4   | 2  | 6  | 7   | 8   | 9   | 10 | u  | 12  |    |    |      |     |     |               |     |      |               |      |            |               |        | 27       |      |       |    |
| 29         | 4.4            | Sutanya V.M.       | 1  | 2  | 3  | 4   | 5  | 6  | 7   | 8   | 1   | 10 | 17 | 12  | 13 | 14 | A    | 51  | 8   | 1             | 8 4 | 192  | 02            | 1-23 | 133        | A             | 24     | 52       | 26 2 | 728   | 3  |
| 30         |                |                    |    |    |    |     |    |    |     |     |     |    |    |     |    |    |      | 4   |     | +             | _   |      |               |      | <u>L</u> , | _             |        | $\sqcup$ | _    | _     |    |
| Sta        | ff Initials    |                    | 10 | 图  | 9  | b   | 99 | 61 | 194 | ur. | 100 | W  | 95 | Ne. | a) | 4. | *    | 9 V | V   | 3/1           | y V | 5    | 4             | 19   | 4          | 10            | ps.    | 00       | 00 V | er b  | 1  |

| ttend   | .01100 |                 |                 |     |        |            |         |
|---------|--------|-----------------|-----------------|-----|--------|------------|---------|
| ndu     | cted   | No. of<br>Class | % of            |     | Assess | ment (\$5) | age     |
| 48      | 60     | Attended        | Atten-<br>dance |     | 1/15   | 11/15      | Average |
|         |        | 59              | 92              | 08  | 151    | ABV        | 17      |
|         |        | 58              | 91              | AB  | 12     | <b>08</b>  | 15      |
|         |        | 59              | 92              | 05  | 12     | 109        | 16      |
|         |        | 62              | 97              | MB  | 14 ~   | 11         | 18      |
|         |        | 600             | 94              | AB  | 13~    | 09         | 16      |
|         |        | 60              | 94              | 10  | 150    | ABI        | 18      |
|         |        | 59              | 92              | 07  | 14~    | 12         | 18      |
|         |        | 61              | 95              | (0  | 150    | AGV        | 18      |
|         |        | 61              | 95              | 10  | 14~    | ABY        | 17      |
|         |        | 61              | 95              | 12  | 14~    | ^ ABV      | 18      |
| T       | T      | 58              | 91              | 09  | 134    | MBV        | 16      |
| T       |        | 78              | 91              | 05  | 11     | 09         | 15      |
|         |        | 62              | 97              | 18  | 140    | ABY        | 17      |
|         |        | 60              | 99              | 11  | 140    | ABY        | 18      |
|         |        | 58              | 91              | 10  | 140    | AB         | 117     |
|         |        | 62              | 97              | 11  | 140    | AB         | 18      |
|         |        | 9               | qu              | 07  | 14 -   | ABV        | 16      |
|         |        | 61              | 95              | 05  | 142    | 11         | 18      |
|         |        | 60              | 94              | 08  | 13~    | ABU        | 16      |
|         |        | 58              | 91              | 09  | 12_    | AGN        | 16      |
|         |        | 60              | 94              | 07  | 12_    | AB         | 15      |
|         |        | 57              | 89              | 14  | 12     | 12         | 18-     |
| $\perp$ |        | 59              | 92              | 07  | 12     | MSV        | 15      |
|         | 1      | 58              | 91              | 11  | 14     | "ALV       | 18      |
|         | _      | GI              | 95              | 10  | 144    | Any        | 17      |
|         | 6      | 1               | 95              | ()  | 142    | ABV        | 18      |
|         |        | 61              | 95'             | 07  | 132    | -AW        | 15      |
| 1       | 1      | 63              | 98              | (0) | 14     | AB         | 17      |
| 1       | - 1    | 58              | 91              | 07  | 12     | 09         | 16-     |
| 1       | -      |                 |                 | -   | =      |            | 100 m   |
|         |        | y               | 101             | the | 192    | 02         | ter     |

#### ALVA'S INS

Class : 6th Sem - ISE

ATTEN

Subject : Software Testing.

ALI

|     |                | Date / Month        | 05  | 06 | 9 | 2  | 역 |
|-----|----------------|---------------------|-----|----|---|----|---|
| SI. | U.S.N.         | Name                | 1   | 2  | 3 | 4  | 5 |
| 1   | 10             | AISHWARYA J. SHETTY | 1   | 2  | 3 | 4  | 5 |
| 2   | 016            | ANVAYA KINI         | 1   | 2  | 3 | 4  | 5 |
| 3   | 07             | CHANDAN R.SHASTRI   |     | 2  | 3 | 4  | 5 |
| 4   | 08             | DEEPASHREE V        | 1   | 2  | 3 | 4  | 5 |
| 5   | 09             | GANESH PRASADE      | 1   | 2  | 3 | 7  | 5 |
| 6   | 11             | HARSHITHA KO        | ı   | 2  | 3 | 4  | 5 |
| 7   | 12             | KAVANA M. G         | (   | 2  | 3 | 4  | 5 |
| 8   | 15             | MINIAL PINTO        | 1   | 2  | 3 | 4  | 5 |
| 9   | 16             | MYTHRI KJ           | 1   | 2  | 3 | 4  | 5 |
| 10  | 17             | NIKSHITHA.          | 1   | 2  | 3 | 4  | 5 |
| 11  | 18             | NISHA               | 1   | 2  | 3 | 4  | 2 |
| 12  | 10             | PAVANIKUMAR M.R     | 1   | 2  | 3 | ų  | 5 |
| 13  | 22             | ATOOG               | 1   | 2  | 3 | a  | 5 |
| 14  | 23             | POOJA G. HEGDE      | 1   | 2  | 3 | ч  | 5 |
| 15  |                | POOJA R.            | 1   | 2  | 3 | 4  | 5 |
| 16  | 25             | POSTA T.S           | 1   | 2  | 3 | ч  | 5 |
| 17  | 26             | P005117+1A.         | 1   | 2  | 3 | ų  | 5 |
| 18  | 27             | PRAJINA M           | 1   | 2  | 3 | 4  | 1 |
| 19  | 35             | RACHANA S           | 1   | 2  | 3 | 4  | 2 |
| 20  |                | SAMEERSHA HEGO      | = 1 | 2  | 3 | 4  | 5 |
| 21  | 38             | SHAZIYA BANU        | 1   | 2  | 3 | 4  | 1 |
| 22  | 41             | SHETTY VIGNESH      | 1   | 2  | 3 | 9  | 5 |
| 23  | 43             | SRINIVAS S          | 1   | 2  | 3 | 4  |   |
| 24  | 45             | SUSH METHA. H.S     | 1   | 2  | 3 | u  |   |
| 25  | 96             | SWARNA GOWRIRS      | , 1 | L  | 3 | a  | 2 |
| 26  | 4:             | THAREERA.A.S        | 1   | 2  | 3 | 4  | 2 |
| 2   | 7 4            | VISHALNAK, N        | 1   | 7  | 3 | u  | S |
| 28  | 50             | TTUP HTAWHLIV "     | 1   | 2  | 3 | 4  | 1 |
| 29  | 9 44           | Sutanya Mm.         | 1   | 2  | 3 | 4  | S |
| 30  |                |                     |     |    |   |    |   |
| 5   | Staff Initials |                     | 12  | 日日 | 9 | 13 | 9 |

**AND TECHNOLOGY** 

MOODBIDRI - 574 225

OF ENGINEE

| 61 62 63 64 65 66 67 68 65 55 50 50 50 50 50 50 50 50 50 50 50 50  | M          |          |       | <i>,</i> <sup>1</sup> | 155 | 5n | mer | 30 | 10.31    |          |          |          |       | student       |    |                   |                 |          |         |            |         |
|--|------------|----------|-------|-----------------------|-----|----|-----|----|----------|----------|----------|----------|-------|---------------|----|-------------------|-----------------|----------|---------|------------|---------|
| 55 So So CO CO OF 67 68  | 39 70 71 2 | П        |       | A                     | AY  |    |     |    |          |          | Tota     | l Cla    | ss Co | onduct        | ed | No. of            | % of            | Internal | Assessn | nent (\$5) | age     |
| MQ 3/2/2   | 12 73 74   | 76       | 77 78 | 79                    | 80  | 81 | 82  | 83 | 84       | 85       | 12       | 24       | 36    | 48            | 60 | Class<br>Attended | Atten-<br>dance | 1/15     | 1/15    | 11/15      | Average |
| 2020   | 1111       |          |       | 5                     | 12  |    |     |    |          |          |          |          |       |               |    | 59                | 92              | 08       | 150     | ABV        | 17      |
| A A TAIN   | 1111       | П        |       | 5                     | 10  |    |     |    |          |          |          |          |       |               |    | 58                | 91              | AB       | 12      | <b>0</b>   | 15      |
| 46162  | ++11       |          |       | 5                     | 11  |    |     |    |          |          |          |          |       |               |    | 59                | 92              | 05       | 12      | 109        | 16      |
| 200  | +++        |          |       | 5                     | 13  |    |     |    |          |          |          | - 1      |       |               |    | 62                | 97              | MB       | 14 /    | 11         | 18      |
| 0657585960   | 1111       |          |       | 5                     | 1)  |    |     |    |          |          |          |          |       |               |    | 600               | 94              | AB       | 13~     | 09,        | 16      |
| X 36 57 19 19  | +++        |          |       | 5                     | 13  |    |     |    |          |          |          |          |       |               |    | 60                | 94              | 0/       | 150     | ABI        | _       |
| A A GO A GI  | ++++       |          |       | 5                     | 13  |    |     |    |          |          |          |          |       |               |    | 59                | 92              | 07       | 142     | 12         | 18      |
| 7 18 5 6061  | ++++       |          |       | 5                     | 13  |    |     |    |          |          |          |          |       |               |    | 61                | 95              | (0       | 150     | AGV        | 18      |
| 85960MC1   | ++++       | $\sqcup$ |       | 5                     | 12  |    |     |    |          |          |          |          |       |               | 4  | 61                | 95              | 10       | 14 ~    | Agv        | 17      |
| 32027 W 28   |            | Н        | -     | 5                     | 13  |    |     |    |          |          |          |          |       | _             | 4  | 61                | 95              | 12       | 14-     | ABV        | 18      |
| AABAA  |            | Н        | -     | 5                     | H   |    |     |    |          |          |          |          |       |               | _  | 58                | 91              | 09       | 132     | PBV        | 16      |
| 5° (061 a 62   |            | $\sqcup$ | -     | 5                     | 10  |    |     |    |          | _        | $\dashv$ | $\dashv$ |       | _             | 4  | 78                | 91              | 05       | 11      | 09         | 15      |
| A 459 A 60   |            | $\vdash$ | -     | 5                     | 12  | -  |     |    | $\vdash$ | 4        | -        | $\dashv$ |       | -             | -  | 62                | 97              | 10       | 141     | ABY        | 17      |
| \$5057 A58   |            | $\vdash$ | -     | 5                     | 13  |    | -   |    |          | 4        | $\dashv$ | $\dashv$ |       | +             | 4  | 58                | 99              | 11       | 14      | ABV        | 18      |
| A 60 61 A 62   |            | -        | -     | 5                     | 12  | -  | -   | -  | +        | $\dashv$ | $\dashv$ |          |       | +             | +  | _                 | 91              | 10       | 142     | AB         | 113     |
| AGTSV ASU  |            | $\vdash$ |       | 5                     | 13  | -  |     |    | -        | -        | $\dashv$ |          |       | +             | +  | 59                | 97              | 11       | 14 -    | ABV        | 19      |
|  |            |          |       | -                     | 13  |    | -   |    | -        | -        |          | $\dashv$ |       | -             | +  |                   | 92              | 07       | 142     |            | 18      |
|  |            |          |       | 5                     | 11  |    | +   |    | +        | $\dashv$ |          |          |       | +             | +  | 60                | 95              | 05       | 13 ~    | 11         | 16      |
|  |            | Н        |       | 5                     | 11  |    |     |    | +        | 7        |          | $\dashv$ |       | +             | +  | 58                | 99              | 08       | 12_     | ABU        | 16      |
| 657 A A 58   | 121 (21)   |          |       | _                     | 10  |    |     |    |          | +        |          |          |       | +             | +  | 60                | 94              | 07       | 12      | AB         | 15      |
|  |            | $\Box$   |       | 5                     | 13  |    |     |    |          |          | $\neg$   |          |       | $\overline{}$ | 7  | 57                | 89              | 14       | 12      | 12         | 18      |
| 3 24 35 25 32 18 52  |            |          |       | 5                     | 10  |    |     |    |          |          |          |          |       | $\neg$        | 7  | 59                | 92              | 57       | 12.     | ATW        | 15      |
| 57 57 5859   |            |          |       | 5                     | 13  |    |     |    |          |          |          |          |       |               |    | 58                | 91              | 11       | 142     | ARV        | 18      |
| LA57A58  | ++++       |          |       | 5                     | 12  |    |     |    |          |          |          |          |       |               |    | £1                | 95              | 10       | 14 2    | Any        | 17      |
| 859 60 M 61  |            |          |       | 5                     | 13  |    |     |    |          |          |          |          | 7     |               |    | 61                | 95              | (1       | 142     | ABV        | 18      |
| 01 TV 59 00 01   |            |          |       | 5                     | 10  |    |     |    |          |          |          |          |       |               |    | 61                | 95              |          |         | M          |         |
| - a (a 6)  | +++        |          |       |                       | 12  |    |     |    |          |          |          |          |       |               |    | 63                | 98              | 10       | 14      | AB         | 17      |
| C. 40 0146   | +++        |          |       | 5                     | 11  |    |     |    |          |          |          |          |       |               |    | 58                | 91              | 01       | 12      | 9          | [b      |
| NOW WAS  | ++++       |          |       | _                     |     |    | 7   |    |          |          |          |          |       |               |    |                   |                 |          |         |            |         |
| The state of the s | 4          |          |       | W                     | 00  |    |     |    |          |          |          |          |       |               |    | by                | Des             | tone     | 192     | 02         | 45      |

Format No. ACD 10 Issue No. 01 ASSIGNMENTS Rev. No. 00 AIET Academic Year 2017-18 Department SSE Semester 06. Date of Date of Signature Announcement Submission of the faculty Books / Journals / Magazines referred Title SI.No. 20/03/19 9/4/18 Software Testing 1,2,3 24 oul18 7/1/18 105 2 Software Peytry (2) 1,2,3

ji.

C

s

| AIET                     |          | INTERNAL EXAM RESULT ANALYSIS Issue Rev. N |                                 |    |    |          |       |         |               |       |         |  |  |  |
|--------------------------|----------|--|---------------------------------|----|----|----------|-------|---------|---------------|-------|---------|--|--|--|
|                          | ISE      | 1  |                                 |    |    |          |       | Semest  | er            | 6     |         |  |  |  |
| Department               | 230      |  |                                 |    |    |          |       | Subject | Code          | 151   | \$63    |  |  |  |
| Total No. of<br>Students | 29       | 29   |                                 |    |    |          |       |         | Academic Year |       | 2017-18 |  |  |  |
| Test                     | Date     |  | Number of Students Signature Re |    |    |          |       |         | Rer           | marks |         |  |  |  |
| T,                       | 27/018   | 26   | 17                              | 14 | 01 | <b>W</b> | land  |         |               |       |         |  |  |  |
| T <sub>2</sub>           | 27/04/18 | 29   | 60                              | 80 | 21 | 1924     | M     |         |               |       |         |  |  |  |
| T <sub>3</sub>           | 19/05/4  | 09   | 01                              | 08 | 00 | 60       | Jul . |         |               | -     | _       |  |  |  |
| Τ,                       |          |  | A                               |    |    |          | 0 1   |         |               |       |         |  |  |  |
| Т,                       |          |  |                                 |    |    |          |       |         |               |       |         |  |  |  |

Signature of Staff in - charge

HOD's Signature

0-69 0-14-3 50-1 50-1

0-8 9-12 13-15

# ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY MOODBIDRI DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING COURSE OUTCOME ASSESSMENT MATRIX

| COURSE OU | TCOMES (COs   | ASSESSMEN               | T MATRIX         |  |  |  |  |  |  |  |  |  |  |  |
|-----------|---|-------------------------|------------------|--|--|--|--|--|--|--|--|--|--|--|
|           | Alva's Institute of Engineering and Technology, Moodbidri |                         |                  |  |  |  |  |  |  |  |  |  |  |  |
|           | of Information  |                         |                  |  |  |  |  |  |  |  |  |  |  |  |
| COs       | Formative   | Summative<br>Assessment | Total Attainment |  |  |  |  |  |  |  |  |  |  |  |
| CO1       | 1.00  | 3                       | 2.60             |  |  |  |  |  |  |  |  |  |  |  |
| CO2       | 0.00  | 3                       | 2.40             |  |  |  |  |  |  |  |  |  |  |  |
| соз       | 0.75  | 3                       | 2.55             |  |  |  |  |  |  |  |  |  |  |  |
| CO4       | 1.60  | 3                       | 2.72             |  |  |  |  |  |  |  |  |  |  |  |
| CO5       | 2.27  | 3                       | 2.85             |  |  |  |  |  |  |  |  |  |  |  |

#### Note:

Total Attainment = (Weightage\*Formative Assessment)+(Weightage\*Summative Assessment) Weightage for Formative Assessment = 20%; Weightage for Summative Assessment = 80%

| P   | PROGRAMME OUTCOME & PROGRAMME SPECIFIC OUTCOME ASSESSMENT MATRIX  Alva's Institute of Engineering and Technology, Moodbidri |     |     |     |      |     |     |     |     |      |      |      |      |      |      |
|---|---|-----|-----|-----|------|-----|-----|-----|-----|------|------|------|------|------|------|
| Department of Information Science and Engineering |   |     |     |     |      |     |     |     |     |      |      |      |      |      |      |
| со  | PO1   | PO2 | PO3 | PO4 | PO5  | P06 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| 1   | 2   | 2   | 3   | 3   | 2    | 1   |     | 2   | 2   | 1    |      | 2    | 2    | 1    |      |
| 2   | 1   | 2   | 2   | 3   | 2    |     |     | 2   | 2   | 1    |      | 1    | 2    | 2    |      |
| 3   | 1   | 2   | 2   | 1   |      |     |     | 2   | 1   | 1    |      | 1    | 2    | 2    |      |
| 4   | 1   | 2   | 2   | 2   | 2    | 1   |     | 2   | 1   | 1    |      | 1    | 2    | 2    |      |
| 5   | 1   | 1   | 2   | 1   | 1    |     |     | 2   | 1   | 1    |      | 2    | 1    | 1    | 1    |
| AVG   | 1.2   | 1.8 | 2.2 | 2   | 1.75 | 1   |     | 2   | 1.4 | 1    |      | 1.4  | 1.8  | 1.6  | 1    |

| PO Attainment Calculation |                      |             |         |         |         |         |         |         |     |         |         |         |      |         |       |       |       |
|---------------------------|----------------------|-------------|---------|---------|---------|---------|---------|---------|-----|---------|---------|---------|------|---------|-------|-------|-------|
| COs                       | CO Attainment        | Grade       | P01     | P02     | P03     | P04     | P05     | P06     | P07 | P08     | P09     | PO10    | PO11 | PO12    | PSO1  | PSO2  | PSO3  |
| C01                       | 2.6                  |             | 1.73333 | 1.73333 | 2.6     | 2.6     | 1.73333 | 0.86667 | 0   | 1.73333 | 1.73333 | 0.86667 | 0    | 1.73333 | 1.733 | 0.867 | 0     |
| C02                       | 2.4                  |             | 0.8     | 1.6     | 1.6     | 2.4     | 1.6     | 0       | 0   | 1.6     | 1.6     | 0.8     | 0    | 0.8     | 1.6   | 1.6   | 0     |
| CO3                       | 2.5                  |             | 0.83333 | 1.66667 | 1.66667 | 0.83333 | 0       | 0       | 0   | 1.66667 | 0.83333 | 0.83333 | 0    | 0.83333 | 1.667 | 1.667 | 0     |
| CO4                       | 2.72                 |             | 0.90667 | 1.81333 | 1.81333 | 1.81333 | 1.81333 | 0.90667 | 0   | 1.81333 | 0.90667 | 0.90667 | 0    | 0.90667 | 1.813 | 1.813 | 0     |
| CO5                       | 2.85                 |             | 0.95    | 0.95    | 1.9     | 0.95    | 0.95    | 0       | 0   | 1.9     | 0.95    | 0.95    | 0    | 1.9     | 0.95  | 0.95  | 0.95  |
|                           | Weighted Sun         | n>          | 5.22333 | 7.76333 | 9.58    | 8.59667 | 6.09667 | 1.77333 | 0   | 8.71333 | 6.02333 | 4.35667 | 0    | 6.17333 | 7.763 | 6.897 | 0.95  |
|                           | Max Weight           | >           | 7.2     | 10.8    | 13.2    | 12      | 8.75    | 3       | 0   | 12      | 8.4     | 6       | 0    | 8.4     | 10.8  | 9.6   | 2     |
| PO Atta                   | inment in percentage | :>          | 72.55   | 71.88   | 72.58   | 71.64   | 69.68   | 59.11   |     | 72.61   | 71.71   | 72.61   |      | 73.49   | 71.88 | 71.84 | 47.50 |
|                           |                      | PO Attained | PO1     | PO2     | PO3     | PO4     | PO5     | P06     | PO7 | PO8     | PO9     | PO10    | PO11 | PO12    | PSO1  | PSO2  | PSO3  |
|                           |                      | Grade       | 0.88    | 1.3     | 1.6     | 1.44    | 1.22    | 0.6     | 0   | 1.46    | 1.01    | 0.73    | 0    | 1.03    | 1.3   | 1.15  | 0.48  |