The Vision and Mission of the Institution and Department

Vision and Mission of the Institution

Vision

Leadership and Excellence in Education

Mission

To fulfill the vision by imparting total quality education replete with the philosophy of blending human values and academic professionalism.

Vision and Mission of the Department of Computer Science & Engineering

Vision

Create ***globally competent professionals*** through quality education in the field of Computer Science and Engineering.

Mission

M1: Empowering students by imparting knowledge, latest technologies through practical approach and academic professionalism to fulfil the needs of the industry.

M2: ***Developing*** Technical proficiencies, communication skills and teamwork among the students.

M3: ***Inculcating*** ethics, social behaviour, and universal human values for sustainable societal growth and environmental protection.

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PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Apply the Computer Science and Engineering technical knowledge to fulfill the organizational needs.

PEO2: Inculcate proficiency, good communication skill, team building and problem-solving abilities.

PEO3: Pursue higher studies, research and to become entrepreneurs with good work ethics and professional behavior.

PROGRAM OUTCOMES (POs)

Graduates of the Computer Science and Engineering Programme will be able to achieve the following POs:

PO1: Engineering Knowledge

Apply the knowledge of mathematics, science, engineering fundamentals, and Computer Science and Engineering principles to the solution of complex problems in Computer Science and Engineering.

PO2: Problem Analysis

Identify, formulate, research literature, and analyze complex Computer Science and Engineering problems reaching substantiated conclusions using first principles of mathematics and engineering sciences.

PO3: Design/Development of Solutions

Design solutions for complex Computer Science and 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.

PO4: 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 related to Computer Science and Engineering problems.

PO5: Modern Tool Usage

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex Computer Science and Engineering activities with an understanding of the limitations.

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PO6: 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 Computer Science and Engineering practice.

PO7: Environment and Sustainability

Understand the impact of the professional Computer Science and Engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics

Apply ethical principles and commit to professional ethics and responsibilities and norms of the Computer Science and Engineering practice.

PO9: Individual and Teamwork

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication

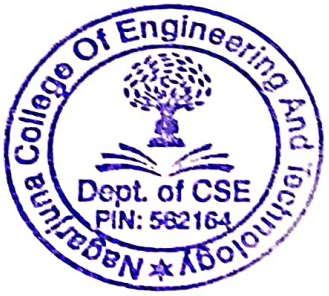
Communicate effectively on complex Computer Science and Engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: 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 Computer Science and Engineering projects and in multidisciplinary environments.

PO12: Lifelong 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 (PSOs)

PSO1: Professional Skills:

Ability to analyze, design and develop computer programs in the areas related to system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexity.

PSO2: Problem-Solving Skills:

Ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver a quality product for business success.

PSO3: Foundation of mathematical concepts:

Ability to apply mathematical concepts to solve real World problems using appropriate datastructure and suitable algorithms.

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Nagarjuna College of Engineering & Technology

Autonomous Institute Under VTU, Bengaluru

CALENDAR OF EVENTS FOR THE ACADEMIC YEAR 2022-2023

FOR

B.E - VII SEMESTER

Vision:	Leadership and Excellence in Education.
Mission:	To fulfill the vision by imparting total quality education replete with the philosophy of blending human values and academic professionalism.

S.No	Events	Date and Day
1	Registration for BE-VII Semester(Odd Sem.)	Monday, 19th Sept 2022 to Friday, 23rd Sept 2022
2	Commencement of Classes for BE- VII Semester.	Monday, 19th Sept 2022
3	Last Date for Dropping of Courses.	Saturday, 22nd Oct 2022
4	Continuous Internal Evaluation (CIE)-I	Friday, 28th Oct 2022 to Monday, 31st Oct 2022
5	Project Phase-1 Review-I	Friday, 04th Nov 2022
6	Student Feedback-I	Monday, 07th Nov 2022 to Friday, 12th Nov 2022
7	PTM-I(Parent Teacher Meeting-I)	Saturday, 19th Nov 2022
8	Continuous Internal Evaluation (CIE)-II	Monday, 05th Dec 2022 to Wednesday, 07th Dec 2022
9	Project Phase-1 Review-II	Friday, 09th Dec 2022
10	Student Feedback-II	Monday, 12th Dec 2022 to Thursday, 15th Dec 2022
11	Last date for Withdrawal of Courses.	Wednesday, 21st Dec 2022
12	Continuous Internal Evaluation (CIE)-III	Thursday, 22nd Dec 2022 to Saturday, 24th Dec 2022
13	Commencement and End of Lab CIE for Integrated Courses(IC) /Practical	Monday, 26th Dec 2022 to Friday, 30th Dec 2022
14	Sending the list of students having NSA(Not Satisfying Attendance) & NSSR(Not Satisfying Sessional Requirement) by the HODs to the Principal.	Friday, 30th Dec 2022
15	Last working day of Odd Semester.	Saturday, 31st Dec 2022
16	Commencement of Semester End (SE) Examinations.	Monday, 09th Jan 2023
17	Commencement of SE Practical Examinations.	Monday, 23rd Jan 2023
18	Republic Day Celebration.	Thursday, 26th Jan 2023
19	Commencement of MakeUp SE Examinations.	Monday, 06th Feb 2023
20	Commencement of Even Semester.	Monday, 13th Feb 2023

Note: All the First Saturday & Third Saturday is Faculty/Student Activity.

Additional Events: Workshops/Value Added Courses/Webinars/Seminars will be conducted by the Departments.

Academic Calendar may be modified based on guidelines/directions issued in the future by VTU/MHRD/UGC/AICTE/State Government.

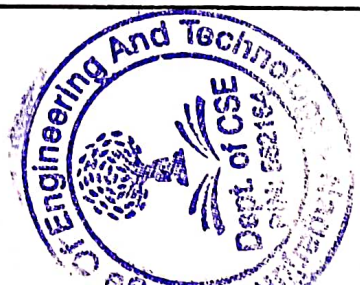
Copy to: Director /Associate Director(IQAC)/COE/HOD-E&C/MECH/CSE/ISE/CIVIL /CS-AI&ML/CS-DS/ PHY/CHEM/MAT/P&T/CA/OS /HR/ACCOUNTS/LIB/SPORTS/COUNSELLING

Total Number of Working Days(WD)- 85 days(M-14: T-13: W-13 : TH-15: F-15: S-15)

9/9/22

CO-ORDINATOR

PRINCIPAL



	Nagarjuna College of Engineering & Technology **Individual Faculty Time table**	Format No.	ACD05
		Issue No.	02
		Issue Date	06/02/2009
		Rev. No.	00

Faculty Name	**Dr. Gopinath A R**					Faculty Qualification		**Ph.D**	
Dept:	**Computer Science & Engineering**					Experience		**17 Years**	
Academic Year	**2023-2024 (Odd Sem)**					Faculty Code		**ARG**	
	1 **9:00am-9:55am**	**2** **9:55am-10:50am**	**10:50am-11:00am**	**3** **11:00am-11:55am**	**11:55am-12:50am**	**4** **12.50pm-1.40pm**	**5** **1:40pm-2:30pm**	**6** **2:30pm-3:20pm**	**7** **3:20pm-4:10pm**
Monday				**20CST752 (B)**				**20CST752 (A)**	
Tuesday	**20CST752 (B)**			**20CST752 (A)**					
Wednesday								**20CST752 (B)**	
Thursday		**20CST752 (A)**				**22CSI33 Lab (B) (Lab 3)**			
Friday	**20CST752 (A)**			**20CST752 (B)**				**22CSI33 Lab (A) (Lab 3)**	
Saturday	**As per Calendar of Events**								

Department Time Table Coordinator

HOD

HOD, Computer Science & Engg.

Software Testing & Quality Assurance

Course Code	L:T:P:S	Credits	ExamMarks	ExamDuration	CourseType
20CST752	3-0-0-0	3	CIE:50 SEE:50	3 Hours	IE-I

Pre-Requisites: A basic understanding of software development, knowledge of programming languages, familiarity with testing concepts and methodologies are essential.

Course Objectives :

This course will enable students to,

- Differentiate the various testing techniques.
- Analyze the problem and derive suitable test cases.
- Apply suitable technique for designing of flow graph.
- Explain the need for planning and monitoring a process.
- Learn the techniques for quality assurance and applying for applications.

Syllabus

Module I

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.

08 Hours

Module II

Problem Statements: Generalized pseudo code, the triangle problem, the NextDate function, the commission problem, the SATM (Simple Automatic Teller Machine) problem, the currency converter, Saturn windshield wiper.

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.

08 Hours

Module III

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

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.

08 Hours

Module IV

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.

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.

08 Hours

Module V

Software Quality: Software quality - People's Quality Expectations, Frameworks and ISO-9126, McCall's Quality Factors and Criteria – Relationship.

Software Quality Assurance: Quality Assurance - Root Cause Analysis, modeling, technologies, standards and methodologies for defect prevention. Fault Tolerance and Failure Containment.

08 Hours

Text Books:

1. Paul C. Jorgensen, Byron DeVries, "Software Testing, A Craftsman's Approach", 5th Edition, Auerbach Publications, 2015, **ISBN 9781032186474**. (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, **ISBN 9788126517732**. (Chapters 3, 4, 16, 17, 20, 21, 22, 24).
3. Aditya P Mathur, "Foundations of Software Testing", Pearson Education, 1st Edition, 2011, **ISBN 13: 978-8131759080**. (Chapters 1, 6.2)
4. JEFF TIAN, "Software Quality Engineering: Testing, Quality Assurance, and Quantifiable Improvement", Wiley-IEEE Computer Society, 2005, **ISBN: 978-0-471-71345-6.** (Chapters 2, 13)

Reference Books:

1) Software testing Principles and Practices – Gopalaswamy Ramesh, Srinivasan Desikan, 2nd Edition, Pearson, 2007, **ISBN 13: 9788177581218**.

E-Resources:

1) https://malenezi.github.io/malenezi/SE401/Books/Software-Testing-A-Craftsman-s-Approach-Fourth-Edition-Paul-C-Jorgensen.pdf

2) https://www.cs.purdue.edu/homes/apm/FoundationsBookSecondEdition/Slides/ConsolidatedSlides.pdf

Course Outcomes:

At the end of course students will be able to:

- Develop test plans, test cases, and test scripts for various types of software applications.
- Compare the different testing techniques.
- Classify the problem into suitable testing model.
- Apply the appropriate technique for the design of flow graph.
- Apply quality assurance practices to prevent defects and ensure the reliability of software.

CO-PO-PSO Mapping

PO'S	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2										2	2	
CO2	3	2												2	
CO3	2													3	
CO4	2												2	2	
CO5	3												2	3	
CO	2.6	2.5	2										2	2.4	

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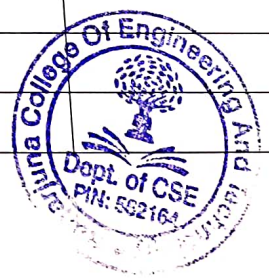
NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

LDPR Report

Course Code : 20CST752
Course Name : SOFTWARE TESTING AND QUALITY ASSURANCE
Department Name : Computer Science and Engineering
Semester Name : SEM07
Section Name : SEC A

Sl No	Period Start Time	Period End Time	Module	Topic	% completed	isNontopic	Comments
1	2023-10-31 11:00:00	2023-10-31 11:55:00	Module 1	Basics of Software Testing: Basic definitions	2.00	NO	
2	2023-11-02 09:55:00	2023-11-02 10:50:00	Module 1	Software Quality , Requirements, Behaviour and Correctness	4.00	NO	
3	2023-11-03 09:00:00	2023-11-03 09:55:00	Module 1	Correctness versus Reliability, Testing and Debugging	7.00	NO	
4	2023-11-07 11:00:00	2023-11-07 11:55:00	Module 1	Test cases, Insights from a Venn diagram	11.00	NO	
5	2023-11-08 11:00:00	2023-11-08 11:55:00	Module 1	Identifying test cases, Test-generation Strategies	13.00	NO	
6	2023-11-09 09:55:00	2023-11-09 10:50:00	Module 1	Test Metrics, Error and fault taxonomies	15.00	NO	
7	2023-11-10 09:00:00	2023-11-10 09:55:00	Module 1	Levels of testing	17.00	NO	
8	2023-11-15 11:00:00	2023-11-15 11:55:00	Module 1	Testing and Verification, Static Testing	20.00	NO	
9	2023-11-16 09:55:00	2023-11-16 10:50:00	Module 2	Problem Statements: Generalized pseudo code, the triangle problem	22.00	NO	
10	2023-11-17 09:00:00	2023-11-17 09:55:00	Module 2	the NextDate function, the commission problem	25.00	NO	
11	2023-11-21 11:00:00	2023-11-21 11:55:00	Module 2	the SATM (Simple Automatic Teller Machine) problem	29.00	NO	
12	2023-11-21 13:40:00	2023-11-21 14:30:00	Module 2	the currency converter, Saturn windshield wiper.	31.00	NO	
13	2023-11-23 09:55:00	2023-11-23 10:50:00	Module 2	Functional Testing: Boundary value analysis, Robustness testing	33.00	NO	



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14	2023-11-24 09:00:00	2023-11-24 09:55:00	Module 2	Worst-case testing, Robust Worst testing for triangle problem,	36.00	NO	
15	2023-11-30 09:55:00	2023-11-30 10:50:00	Module 2	NextDate problem and commission problem	38.00	NO	
16	2023-12-01 09:00:00	2023-12-01 09:55:00	Module 2	Equivalence classes, Equivalence test cases for the triangle problem.	40.00	NO	
17	2023-12-05 11:00:00	2023-12-05 11:55:00	Module 3	Fault Based Testing: Overview, Assumptions in fault based testing	42.00	NO	
18	2023-12-07 09:55:00	2023-12-07 10:50:00	Module 3	Mutation analysis, Fault-based adequacy criteria	45.00	NO	
19	2023-12-08 09:00:00	2023-12-08 09:55:00	Module 3	Variations on mutation analysis, Structural Testing: Overview	47.00	NO	
20	2023-12-12 11:00:00	2023-12-12 11:55:00	Module 3	Statement testing, Branch testing, Condition testing	50.00	NO	
21	2023-12-14 09:55:00	2023-12-14 10:50:00	Module 3	Path testing: DD paths, Test coverage metrics	53.00	NO	
22	2023-12-21 09:55:00	2023-12-21 10:50:00	Module 3	Basis path testing, guidelines and observations	55.00	NO	
23	2023-12-22 09:00:00	2023-12-22 09:55:00	Module 3	Data â€"Flow testing: Definition-Use testing	57.00	NO	
24	2023-12-26 11:00:00	2023-12-26 11:55:00	Module 3	Slicebased testing, Guidelines and observations	60.00	NO	
25	2023-12-28 09:55:00	2023-12-28 10:50:00	Module 4	Test Execution: Overview of test execution	62.00	NO	
26	2024-01-02 11:00:00	2024-01-02 11:55:00	Module 4	from test case specification to test cases, Scaffolding	64.00	NO	
27	2024-01-04 09:55:00	2024-01-04 10:50:00	Module 4	Generic versus specific scaffolding	67.00	NO	
28	2024-01-05 09:00:00	2024-01-05 09:55:00	Module 4	Test oracles, Self-checks as oracles	70.00	NO	
29	2024-01-09 11:00:00	2024-01-09 11:55:00	Module 4	Capture and replay, Process Framework :Basic principles	72.00	NO	

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30	2024-01-10 13:40:00	2024-01-10 14:30:00	Module 4	Sensitivity, redundancy, restriction, partition, visibility	74.00	NO	
31	2024-01-12 09:00:00	2024-01-12 09:55:00	Module 4	Feedback, the quality process, Planning and monitoring	76.00	NO	
32	2024-01-12 13:40:00	2024-01-12 14:30:00	Module 4	Quality goals, Dependability properties ,Analysis Testing	78.00	NO	
33	2024-01-16 11:00:00	2024-01-16 11:55:00	Module 4	Improving the process, Organizational factors	80.00	NO	
34	2024-01-17 14:30:00	2024-01-17 15:20:00	Module 5	Software Quality: Software quality - Peopleâ€˜s Quality Expectations	82.00	NO	
35	2024-01-18 09:55:00	2024-01-18 10:50:00	Module 5	Frameworks and ISO-9126	85.00	NO	
36	2024-01-18 11:00:00	2024-01-18 11:55:00	Module 5	McCallâ€˜s Quality Factors and Criteria â€" Relationship	87.00	NO	
37	2024-01-19 09:00:00	2024-01-19 09:55:00	Module 5	contd. :McCallâ€˜s Quality Factors and Criteria â€" Relationship	89.00	NO	
38	2024-01-23 11:00:00	2024-01-23 11:55:00	Module 5	Software Quality Assurance: Quality Assurance - Root Cause Analysis	91.00	NO	
39	2024-01-25 09:55:00	2024-01-25 10:50:00	Module 5	modeling, technologies	94.00	NO	
40	2024-01-30 11:00:00	2024-01-30 11:55:00	Module 5	standards and methodologies for defect prevention	97.00	NO	
41	2024-02-01 09:55:00	2024-02-01 10:50:00	Module 5	Fault Tolerance and Failure Containment	100.00	NO	

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NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

LDPR Report

Course Code : 20CST752
Course Name : SOFTWARE TESTING AND QUALITY ASSURANCE
Department Name : Computer Science and Engineering
Semester Name : SEM07
Section Name : SEC A

Sl No	Period Start Time	Period End Time	Module	Topic	% completed	isNontopic	Comments
1	2023-10-30 11:00:00	2023-10-30 11:55:00	Module 1	Basics of Software Testing: Basic definitions	2.00	NO	
2	2023-10-31 09:00:00	2023-10-31 09:55:00	Module 1	Software Quality , Requirements	6.00	NO	
3	2023-11-03 11:00:00	2023-11-03 11:55:00	Module 1	Behaviour and Correctness, Correctness versus Reliability	8.00	NO	
4	2023-11-04 11:00:00	2023-11-04 11:55:00	Module 1	Testing and Debugging, Test cases	12.00	NO	
5	2023-11-06 11:00:00	2023-11-06 11:55:00	Module 1	Insights from a Venn diagram, Identifying test cases	14.00	NO	
6	2023-11-07 09:00:00	2023-11-07 09:55:00	Module 1	Test-generation Strategies, Test Metrics	16.00	NO	
7	2023-11-10 11:00:00	2023-11-10 11:55:00	Module 1	Error and fault taxonomies, Levels of testing	18.00	NO	
8	2023-11-11 11:00:00	2023-11-11 11:55:00	Module 1	Testing and Verification, Static Testing	20.00	NO	
9	2023-11-13 11:00:00	2023-11-13 11:55:00	Module 2	Problem Statements: Generalized pseudo code	22.00	NO	
10	2023-11-16 11:00:00	2023-11-16 11:55:00	Module 2	the triangle problem, the NextDate function	24.00	NO	
11	2023-11-17 11:00:00	2023-11-17 11:55:00	Module 2	the commission problem, the SATM (Simple Automatic Teller Machine) problem	26.00	NO	
12	2023-11-18 11:00:00	2023-11-18 11:55:00	Module 2	the currency converter, Saturn windshield wiper.	29.00	NO	
13	2023-11-20 11:00:00	2023-11-20 11:55:00	Module 2	Functional Testing: Boundary value analysis, Robustness testing, Worst-case testing	32.00	NO	

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14	2023-11-23 11:00:00	2023-11-23 11:55:00	Module 2	Robust Worst testing for triangle problem	35.00	NO	
15	2023-11-24 11:00:00	2023-11-24 11:55:00	Module 2	NextDate problem and commission problem	37.00	NO	
16	2023-11-24 13:40:00	2023-11-24 14:30:00	Module 2	Equivalence classes, Equivalence test cases for the triangle problem.	40.00	NO	
17	2023-11-25 11:00:00	2023-11-25 11:55:00	Module 3	Fault Based Testing: Overview, Assumptions in fault based testing	42.00	NO	
18	2023-12-01 11:00:00	2023-12-01 11:55:00	Module 3	Mutation analysis, Fault-based adequacy criteria	44.00	NO	
19	2023-12-02 11:00:00	2023-12-02 11:55:00	Module 3	Variations on mutation analysis, Structural Testing: Overview, Statement testing	47.00	NO	
20	2023-12-04 11:00:00	2023-12-04 11:55:00	Module 3	Branch testing, Condition testing, Path testing	51.00	NO	
21	2023-12-05 09:00:00	2023-12-05 09:55:00	Module 3	DD paths, Test coverage metrics, Basis path testing	53.00	NO	
22	2023-12-08 11:00:00	2023-12-08 11:55:00	Module 3	guidelines and observations, Data â€"Flow testing	55.00	NO	
23	2023-12-12 09:00:00	2023-12-12 09:55:00	Module 3	Definition-Use testing	57.00	NO	
24	2023-12-14 13:40:00	2023-12-14 14:30:00	Module 3	Slicebased testing, Guidelines and observations	60.00	NO	
25	2023-12-22 11:00:00	2023-12-22 11:55:00	Module 4	Test Execution: Overview of test execution, from test case specification to test cases	62.00	NO	
26	2023-12-26 09:00:00	2023-12-26 09:55:00	Module 4	Scaffolding, Generic versus specific scaffolding	65.00	NO	
27	2024-01-02 09:00:00	2024-01-02 09:55:00	Module 4	Test oracles, Self-checks as oracles	67.00	NO	
28	2024-01-04 13:40:00	2024-01-04 14:30:00	Module 4	Capture and replay, Process Framework :Basic principles	69.00	NO	
29	2024-01-05 11:00:00	2024-01-05 11:55:00	Module 4	Sensitivity, redundancy, restriction, partition	72.00	NO	

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30	2024-01-08 11:00:00	2024-01-08 11:55:00	Module 4	visibility, Feedback, the quality process, Planning and monitoring	76.00	NO	
31	2024-01-09 09:00:00	2024-01-09 09:55:00	Module 4	Quality goals, Dependability properties ,Analysis Testing	78.00	NO	
32	2024-01-12 11:00:00	2024-01-12 11:55:00	Module 4	Improving the process, Organizational factors.	80.00	NO	
33	2024-01-16 09:00:00	2024-01-16 09:55:00	Module 5	Software Quality: Software quality - Peopleâ€™s Quality Expectations	82.00	NO	
34	2024-01-19 11:00:00	2024-01-19 11:55:00	Module 5	Frameworks and ISO-9126	86.00	NO	
35	2024-01-20 11:00:00	2024-01-20 11:55:00	Module 5	McCallâ€™s Quality Factors and Criteria â€“ Relationship	89.00	NO	
36	2024-01-22 11:00:00	2024-01-22 11:55:00	Module 5	Software Quality Assurance: Quality Assurance	91.00	NO	
37	2024-01-23 09:00:00	2024-01-23 09:55:00	Module 5	Root Cause Analysis	93.00	NO	
38	2024-01-27 11:00:00	2024-01-27 11:55:00	Module 5	modeling, technologies	95.00	NO	
39	2024-01-29 11:00:00	2024-01-29 11:55:00	Module 5	standards and methodologies for defect prevention	98.00	NO	
40	2024-01-30 09:00:00	2024-01-30 09:55:00	Module 5	Fault Tolerance and Failure Containment	100.00	NO	

Nagarjuna College Of Engineering And Technology
Dept. of CSE
PIN: 562164

CBCS SCHEME

USN | | | | | | | | | | |

18IS62

Sixth Semester B.E. Degree Examination, June/July 2023
Software Testing

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. Explain program behavior insights from a Venn Diagram for functional testing and structural testing. **(10 Marks)**

b. Identify and explain fault taxonomies with example. **(10 Marks)**

OR

2 a. With the flowchart for the traditional triangle problem implementation. **(10 Marks)**

b. Analyse and explain the SATM screen. **(10 Marks)**

Module-2

3 a. Write a program to solve the triangle problem. Derive test cases for program based on boundary value analysis. **(10 Marks)**

b. Write a program to solve commission problem. Analyze it from the perspective of equivalence class testing and derive the test cases. **(10 Marks)**

OR

4 a. Write a program to solve the triangle problem. Derive test cases for program based on decision table approach. **(10 Marks)**

b. List the assumptions made in fault based testing and explain the mutation analysis with sample program. **(10 Marks)**

Module-3

5 a. Analyze and explain metric - based testing. **(10 Marks)**

b. Explain define/Use testing with example. **(10 Marks)**

OR

6 a. Describe about scaffolding. Discuss about Generic versus specific scaffolding. **(08 Marks)**

b. Define
i) Test oracles
ii) Self – checks
iii) Capture
iv) Replay. **(12 Marks)**

Module-4

7 a. Explain the basic principles in the frame work for test and analysis **(12 Marks)**

b. List and explain the dependability properties test and analysis actives **(08 Marks)**

OR

8 a. Explain Software Reliability Engineered Testing (SRET) approach with diagram **(10 Marks)**

b. Identify and explain risk management in quality plan with respect to generic and specific issues **(10 Marks)**

OR

8 a. Explain :
i) Risk planning ii) Organizing document iii) Monitoring the process iv) Quality goals
v) Quality process. (10 Marks)
b. Write a short note on a standard organization of analysis and test plan. (10 Marks)

Module-5

9 a. With a neat diagram, explain alternate life cycle specification based model in detail. (10 Marks)
b. Explain decomposition based integration testing. (10 Marks)

OR

10 a. Explain the call graph, based integration with the help of
i) Pair – wise integration
ii) Neighborhood integration (10 Marks)
b. Explain the context diagram of SATM system. (10 Marks)

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CBCS SCHEME

USN 18IS62

Sixth Semester B.E. Degree Examination, Jan./Feb. 2023

Software Testing

Time: 3 hrs. Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. What is Software Testing? Explain the portrays of software testing life cycle. (05 Marks)
b. Define the terms : i) Error ii) Fault iii) Failure iv) Incident v) Test case. (05 Marks)
c. Explain Triangle problem statement along with flowchart for traditional implementation. (10 Marks)

OR

2 a. Explain testing and Debugging with a neat diagram. (10 Marks)
b. Explain error and fault Taxonomies. (05 Marks)
c. With a neat diagram, explain the currency converter system. (05 Marks)

Module-2

3 a. Explain Boundary value analysis and write the test cases using BVA testing for a triangle problem. (10 Marks)
b. Explain fault based testing with its terminologies and assumptions. (10 Marks)

OR

4 a. Briefly explain the variants of equivalence class testing. Derive equivalence class test cases for next date problem. (10 Marks)
b. Explain the format of decision table for refined version of triangle problem. (10 Marks)

Module-3

5 a. Write a note on statement testing and branch testing or block converge. (05 Marks)
b. Define DD path. Explain basis path testing with suitable example. (10 Marks)
c. Explain metric based testing. (05 Marks)

OR

6 a. What is the use of Data flow Testing? List and define various terms in Define use testing with an example. (10 Marks)
b. What is Scaffolding? Differentiate between generic and specific scaffolding. (05 Marks)
c. Explain : i) Test oracles ii) Capture and replay. (05 Marks)

Module-4

7 a. Write a note on :
i) Sensitivity ii) Redundancy iii) Partition iv) Visibility v) Feedback. (10 Marks)
b. Explain dependability Properties. (10 Marks)

OR

8 a. Explain in detail about the Risk management interms of process and quality management. List out various Risks and their control tactics in both. (10 Marks)

b. Write short notes on the following :
i) Organizing documents
ii) Test and analysis Reports. (10 Marks)

Module-5

9 a. Compare Unit, Integration and System Testing. (06 Marks)

b. Explain in detail about Integration Testing strategies. (08 Marks)

c. Write short notes on Test case prioritization and selective execution. (06 Marks)

OR

10 a. Compare system, acceptance and regression testing. (04 Marks)

b. Explain various alternate lifecycle models in detail. (10 Marks)

c. Write short notes on Regression Testing. (06 Marks)

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CBCS SCHEME

USN | | | | | | | | | | |

18IS62

Sixth Semester B.E. Degree Examination, July/August 2022
Software Testing

Time: 3 hrs. Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. Explain the use of Venn diagram in Software Testing with diagrams. **(08 Marks)**

b. List out the advantages and disadvantages of specification based testing technique. **(06 Marks)**

c. Write a improved version of Triangle program that takes 3 integers as sides of the triangle and finds whether the triangle is Scalene, Isosceles or Equilateral. **(06 Marks)**

OR

2 a. Explain various software quality attributes. **(08 Marks)**

b. What is a Test case? What does the information a test case contain? **(04 Marks)**

c. Write a complete program for NextDate problem which takes Day, Month, and Year as input and finds the next date. **(08 Marks)**

Module-2

3 a. Briefly explain normal and worst case robust boundary value analysis testing with input domain diagrams for a function of two variables. **(08 Marks)**

b. What is a Decision Table? Explain each term related to it with example diagram. **(06 Marks)**

c. Explain about Mutation Analysis used in Fault Based Testing. **(06 Marks)**

OR

4 a. Write the test cases for the C function which takes two integers as input and finds the maximum of two integers using Robust Boundary Value Analysis. Assume the inputs are in the range of 1 to 35000. **(08 Marks)**

b. Define Equivalence class testing. Write weak robust equivalence class test cases for commission problem. **(08 Marks)**

c. Define the following terms with respect to fault based testing
i) Equivalent Mutant ii) Coupling Effect. **(04 Marks)**

Module-3

5 a. Define DD path graph. Draw the DD path graph for triangle problem. **(06 Marks)**

b. Consider the following program. Find the DU paths for the variables staffDiscount, totalPrice, finalPrice, discount and price. Verify whether these DU paths are definition clear.

```
1.  program Example ( )
2.  var staffDiscount, totalPrice, finalPrice, discount, Price
3.  staffDiscount  = 0.1
4.  total Price   = 0
5.  input(Price)
6.  while(Price ! = – 1) do
7.  totalPrice = totalPrice + Price
8.  input(Price)
9.  do
10. print ("TotalPrice :" + totalPrice)
```

```
11. if (totalPrice>15.00) then
12. discount = (staffDiscount *totalPrice * 0.50)
13. else
14. discount = (staffDiscount*totalPrice)
15. fi
16. print("Discount:" + discount)
17. finalPrice = totalPrice – discount
```

c. What is scaffolding? What are the components of scaffolding? (10 Marks) (04 Marks)

OR

6 a. Explain McCabe's basis path testing with Triangle problem. (08 Marks)

b. Consider the following C function which encodes the string in the following manner. If the string character is + or – or *, it is replaced with space ' ' if it is an uppercase character, it is replaced with lowercase, other alphanumeric characters are simply copied into destination string. Draw the control flow graph for the program. Find out the statement converge and node converge "o from control flow graph for the test suite
To = {"Test ", "Test**ing", "Test + –"}.

```
i) const char * encode (char * str){
ii) int i = 0 ;
iii) char *str1 = str ;
iv) char en_str [25] ;
v) while (str1[i] ! = '\0'){
vi) if (str1[i] = = '*' || str[i] = = '+' || str1[i] = = '–')
vii) en_str[i] = ' ' ;
viii) else if (str1[i] >= 65 && str1[i] <= 90)
ix) en_str[i] = str1[i]+32;
x) else
xi) en_str = str1 [i] ;
xii) i + + ;
xiii) }
xiv) en_str [i] = '\0' ;
xv) return (en_str) ;
xvi) }
```

(08 Marks)

c. What are self check oracles? Compare self check oracles with comparison based oracles. (04 Marks)

Module-4

7 a. Explain about the following basic principle of Testing process framework.
i) Sensitivity
ii) Restriction. (08 Marks)

b. What are dependability properties in testing process framework? Explain with diagram. (08 Marks)

c. Write short notes on Test design specification document. (04 Marks)

OR

8 a. Explain :
i) Risk planning ii) Organizing document iii) Monitoring the process iv) Quality goals
v) Quality process. (10 Marks)
b. Write a short note on a standard organization of analysis and test plan. (10 Marks)

Module-5

9 a. With a neat diagram, explain alternate life cycle specification based model in detail. (10 Marks)
b. Explain decomposition based integration testing. (10 Marks)

OR

10 a. Explain the call graph, based integration with the help of
i) Pair – wise integration
ii) Neighborhood integration (10 Marks)
b. Explain the context diagram of SATM system. (10 Marks)

* * * * *

USN | | | | | | | | | | 18IS62

Sixth Semester B.E. Degree Examination, Jan./Feb. 2023
Software Testing

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. What is Software Testing? Explain the portrays of software testing life cycle. (05 Marks)
b. Define the terms : i) Error ii) Fault iii) Failure iv) Incident v) Test case. (05 Marks)
c. Explain Triangle problem statement along with flowchart for traditional implementation. (10 Marks)

OR

2 a. Explain testing and Debugging with a neat diagram. (10 Marks)
b. Explain error and fault Taxonomies. (05 Marks)
c. With a neat diagram, explain the currency converter system. (05 Marks)

Module-2

3 a. Explain Boundary value analysis and write the test cases using BVA testing for a triangle problem. (10 Marks)
b. Explain fault based testing with its terminologies and assumptions. (10 Marks)

OR

4 a. Briefly explain the variants of equivalence class testing. Derive equivalence class test cases for next date problem. (10 Marks)
b. Explain the format of decision table for refined version of triangle problem. (10 Marks)

Module-3

5 a. Write a note on statement testing and branch testing or block converge. (05 Marks)
b. Define DD path. Explain basis path testing with suitable example. (10 Marks)
c. Explain metric based testing. (05 Marks)

OR

6 a. What is the use of Data flow Testing? List and define various terms in Define use testing with an example. (10 Marks)
b. What is Scaffolding? Differentiate between generic and specific scaffolding. (05 Marks)
c. Explain : i) Test oracles ii) Capture and replay. (05 Marks)

Module-4

7 a. Write a note on :
i) Sensitivity ii) Redundancy iii) Partition iv) Visibility v) Feedback. (10 Marks)
b. Explain dependability Properties. (10 Marks)

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Monthly Attendance Report

Semester: Semester 7 **Class** : Section A **Date :** 19-Oct-2023 to 04-Feb-2024 **Attendance filter** 100 % **Code** : 20CST752 **Subject Type:** Theory **Batch** : Batch 1 **Subject :** SOFTWARE TESTING AND QUALITY ASSURANCE

Name of Staff Members : MR. GOPINATH A R

USN	Student Name	31	2	3	7	8	9	10	15	16	17	21	21	23	24	30	1	5	7	8	12	14	21	22	26	28	2	4	5	9	10	12	12	16	17	18	18	19	23	25	30	1	Total E	Total A	Attn%
1NC20CS001	ABHINAV	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	41	38	93
1NC20CS002	ABHINAYA A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS003	ABHISHEK ANAND	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	41	37	90
1NC20CS004	ADITYA KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	41	38	93
1NC20CS005	AMODHINI H	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS006	APARNA JHA	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS007	ARSHIYA S	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	41	38	93
1NC20CS008	BHARAT BHUSHAN	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	39	95
1NC20CS009	CHANDANA K M	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS010	CHANDRAMOULI KUMAR DEV	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	39	95
1NC20CS011	CHINMAYE B P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	39	95
1NC20CS012	D POOJITHA CHOWDARY	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS013	DANISH KHURSHEED	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	A	P	A	A	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	36	88
1NC20CS014	DEVIKA S M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS015	DHEERAJ KUMAR K	A	P	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P	P	A	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	36	88
1NC20CS016	DIGANTH B PATIL	A	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	36	88
1NC20CS017	G Y SOWJANYA	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS018	GAJULA BHAVANA	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	41	39	95
1NC20CS019	GAUTAM KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS020	GOWTHAM N	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS021	H A VARSHINI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	41	37	90
1NC20CS022	HARSHITHA G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	A	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS023	HARSHITHA H B	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS024	HEMANTHA S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS025	JAYANTH K	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS026	KADIRI KRISHNA VAMSI	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	36	88
1NC20CS027	KARTHIK P R	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	A	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS028	KAVYA S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS029	LAKSHMI K L	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS030	LUBNA SHAFI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	39	95
1NC20CS031	MADHUSHALINI	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93
1NC20CS032	MADHUSHREE C R	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS033	MALLIKARJUNA R	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS034	MANJESH V	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS035	MANJULA G S	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	41	39	95

B/F: Brought Forward, E: Classes Engaged, A: Classes Attended, Note: Mark P for Present and A for Absent NC: Not Considered

(For Theory: one sheet/calendar month, For Labs/Practicals, the attendance sheet shall be maintained batchwise for full semester)

Signature of Staff Member:

Head of Department

HOD, Computer Science & Engg.
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangaluru-562164

Principal

Principal
Nagarjuna College Of Engineering And Technology
Dept. of CSE
PIN: 562164

Date 04-Feb-2024

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Monthly Attendance Report

Semester: Semester 7 **Class** : Section A **Date:** 19-Oct-2023 to 04-Feb-2024 **Attendance filter**100 % **Code** : 20CST752 **Subject Type:** Theory **Batch** : Batch 1 **Subject** : SOFTWARE TESTING AND QUALITY ASSURANCE

Name of Staff Members : MR. GOPINATH A.R.

USN	Students Name	31	2	3	7	8	9	10	15	16	17	21	21	23	24	30	1	5	7	8	12	14	21	22	26	28	2	4	5	9	10	12	12	16	17	18	18	19	23	25	30	1	Total		Attn%
																																										E	A	
1NC20CS036	MANNE VISWANADH	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	41	0	0
1NC20CS037	MANOJ A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	37	90
1NC20CS038	MANOJ H S	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	A	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	41	36	88
1NC20CS039	MAURYA AMANKUMAR DINESHKUMAR	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	39	95
1NC20CS040	MD AFWANULLA SHARIFF	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	A	A	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC20CS041	MD SHAHRUKH ALAM KHAN	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	38	93

HOD, Computer Science & Engg
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Baengaluru-562164

B/F Brought Forward, E Classes Engaged, A Classes Attended, Note Mark P for Present and A for Absent NC Not Considered
(For Theory, one sheet/calendar month, For Labs/Practicals, the attendance sheet shall be maintained batchwise for full semester)

Signature of Staff Member:

Head of Department:

Date 04-Feb-2024 10 15 02

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Monthly Attendance Report

Semester: Semester 7 **Class** : Section A **Date** : 19-Oct-2023 to 04-Feb-2024 **Attendance filter**:100 % **Code** : 20CST752 **Subject Type**: Theory **Batch** : Batch 2 **Subject** : SOFTWARE TESTING AND QUALITY ASSURANCE

Name of Staff Members : MR. GOPINATH A.R.

USN	Students Name	30	31	3	4	6	7	10	11	13	16	17	18	20	23	24	24	25	1	2	4	5	8	12	14	22	26	2	4	5	8	9	12	16	19	20	22	23	27	29	30	Total		Attn%
																																									E	A	
1NC20CS042	MITHUN KUMAR D N	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS043	MOHAMMAD NAWAZ	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS044	MOHAN B V	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS045	MONIKA S P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS046	MUNISH GOWDA K	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS047	MUSKAN J B	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS048	NANDISH J K	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	37	93
1NC20CS049	NANDU SHREE P N	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS050	NIKITHA RAJ K R	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS051	NIRAJ KUMAR	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS052	NISARGA K R	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS053	PRATHIBHA B N	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS054	PRIYANKA N	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS055	PUNITH GOWDA S C	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS056	RACHANA S S	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS057	RAJESH KUMAWAT	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS058	RAKESH ANNAPPA NAIK	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS059	ROOPA U	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS060	ROY VIVEK TAPAN	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS061	SACHIN C	A	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS062	SAGAR BYADAGI	P	P	P	P	P	A	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS063	SAHANA S D	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS065	SANDEEP KUMAR	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS066	SHIVAM YADAV	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS067	SINDHURA S REDDY	A	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS068	SIRISHA S	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	A	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS069	SOURAV KUMAR	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS070	SRIKAR R	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS071	T Y RAHUL KUMAR	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS072	TEJAS G N	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS073	TITAME SIDDHANT RAMESH	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	36	90
1NC20CS074	VANDANA S	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS075	VINAY R G	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS077	YASHASWINI P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88
1NC20CS078	YENUGULA SAI SREE	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	35	88

B/F: Brought Forward. E: Classes Engaged. A: Classes Attended. Note: Mark P for Present and A for Absent NC: Not Considered

(For Theory: one sheet/calendar month, For Labs/Practicals: the attendance sheet shall be maintained batchwise for full semester)

Signature of Staff Member:

Head of Department

HOD, Computer Science & Engg.
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangaluru-562164

Nagarjuna College of Engineering And Technology
Dept. of CSE
PIN: 562164

Date: 04-Feb-2024 10:16:11

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Monthly Attendance Report

Semester: Semester 7 **Class** : Section A **Date :** 19-Oct-2023 to 04-Feb-2024 **Attendance filter** 100 % **Code** : 20CST752 **Subject Type:** Theory **Batch** : Batch 2 **Subject :** SOFTWARE TESTING AND QUALITY ASSURANCE

Name of Staff Members : MR. GOPINATH A R

USN	Students Name	30	31	3	4	6	7	10	11	13	16	17	18	20	23	24	24	25	1	2	4	5	8	12	14	22	26	2	4	5	8	9	12	16	19	20	22	23	27	29	30	Total		Attn%
																																									E	A	
1NC20CS079	IMRAN MANZOOR KUMAR	A	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	40	34	85
1NC21CS401	PUSHTIRAJ H M	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	40	0	0
1NC21CS402	RAM KUMAR S	P	P	A	A	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	40	34	85

BF Brought Forward E Classes Engaged A Classes Attended Note Mark P for Present and A for Absent NC Not Considered
(For Theory one sheet/calendar month, For Labs/Practicals the attendance sheet shall be maintained batchwise for full semester)

Signature of Staff Member:

HOD, Computer Science & Engg.
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangaluru-562164

Head of Department

Date 04-Feb-2024

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous Institute Affiliated to VTU)

Department of Computer Science and Engineering

Course Name: Software Testing & Quality Assurance **Course Code**: 20CST752 **Semester**: VII

AAT1-Assignment

	Module-1 and Module-2	COs	RBT
1	Write briefly about structural testing.	CO1	L2
2	What is test case? explain life cycle model for test case.	CO1	L2
3	Explain errors, faults and failure in the process of programming and testing.	CO1	L2
4	Explain software quality and software requirement and their types.	CO1	L2
5	Distinguish between testing and debugging	CO1	L2
6	Describe about SATM screen with problem statement.	CO2	L3
7	Explain fault based testing with its terminologies.	CO2	L2
8	Imagine you are tested with testing a software application that calculates and classifies triangles based on user provided input for the lengths of three sides. the triangle problem statement involves identifying potential issues in the software related to the classification of triangles and ensuring calculation. explain the triangle program.	CO2	L3
9	Explain equivalence class test? what are the different from equivalence class test?	CO2	L2
10	Explain boundary value analysis.	CO2	L2

Nagarjuna College Of Engineering and Technology
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PIN: 562164

HOD, Computer Science & Engg.
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bengaluru-562164

Software Testing & Quality Assurance (20CST752)

AAT-2: QUIZ

Note: Each Question carries 1Mark

1. What is the primary purpose of test execution in the software testing lifecycle?
    a. Test planning
    b. Test case specification
    c. Verifying the correctness of the software
    d. Bug tracking

    Answer: c. Verifying the correctness of the software

2. What does "scaffolding" refer to in the context of test execution?
    a. A structure used in construction
    b. Setting up the necessary preconditions for test cases
    c. A synonym for test oracle
    d. Capturing and replaying test scenarios

    Answer: b. Setting up the necessary preconditions for test cases

3. How is generic scaffolding different from specific scaffolding in test execution?
    a. Generic scaffolding is for manual testing, while specific scaffolding is for automated testing.
    b. Generic scaffolding is reusable across multiple test cases, while specific scaffolding is tailored for a particular test case.
    c. Generic scaffolding is only used in system testing, while specific scaffolding is for unit testing.
    d. Generic scaffolding is applicable to non-functional testing, while specific scaffolding is for functional testing.

    Answer: b. Generic scaffolding is reusable across multiple test cases, while specific scaffolding is tailored for a particular test case.

4. What serves as a reference point or criterion to determine whether a test case has passed or failed during test execution?
    a. Test case specification
    b. Scaffolding
    c. Capture and replay
    d. Test oracle

    Answer: d. Test oracle

5. In test execution, what role do self-checks play as oracles?
    a. Verifying test case correctness
    b. Generating test data
    c. Capturing test results
    d. Analyzing test logs

    Answer: a. Verifying test case correctness

Process Framework:

6. Which basic principle in the process framework emphasizes understanding the impact of changes on different components?
    a. Sensitivity
    b. Redundancy
    c. Dependency
    d. Partition

    Answer: a. Sensitivity
7. What does the principle of visibility in the process framework stress?
    a. The need for clear and transparent communication
    b. Hiding details of the software from testers
    c. Limiting access to project documentation
    d. Keeping the testing process confidential

Answer: a. The need for clear and transparent communication

8. Which term refers to the process of breaking down a system into smaller, manageable units for testing purposes in the context of the process framework?
    a. Partition
    b. Restriction
    c. Dependency
    d. Redundancy

Answer: a. Partition

9. What is the role of feedback in the process framework?
    a. Providing information on defects found
    b. Controlling access to project resources
    c. Restricting the testing process
    d. Reducing the visibility of the testing process

Answer: a. providing information on defects found

10. What factor is considered when setting quality goals in the context of the process framework?
    a. Project budget
    b. Stakeholder expectations
    c. Team experience
    d. All of the above

Answer: d. All of the above

Nagarjuna College Of Engineering & Technology
Dept. of CSE
PIN: 562164

HOD, Computer Science & Engg
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NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous Institute Affiliated to VTU)

Department of Computer Science and Engineering

Odd Semester 2023-24

Continuous Internal Evaluation – 1

Course Name: Software Testing & Quality Assurance | **Course Code:** 20CS1752 | **Semester:** VII

Date: 29.11.2023 | **Time:** 9.30 AM to 11.00 AM | **Max. Marks:** 50

[Note: Answer any two full questions as indicated below]

		COs	Marks	RBL
	Module 1			
1a	Define software quality. Distinguish between static quality attributes and dynamic quality attributes. Briefly explain any one dynamic quality attribute	CO1	10	L2
b	What is test case? Explain the life cycle model for testing.	CO1	05	L2
c	Write briefly about Structural Testing?	CO1	05	L2
	OR			
2a	Explain Program behavior and tested behavior with Venn diagram	CO1	10	L2
b	Explain Errors, Faults, and Failures in the process of programming and testing with the diagram.	CO1	05	L2
c	Illustrate the challenges do testers face in identifying all bugs within a system.	CO1	05	L2
	Module 2			
3a	Write a program to solve the triangle problem and derive its test cases for program based on Boundary Value Analysis.	CO2	10	L3
b	In the development of an advanced Software Automated Testing Machine (SATM), the team is working on refining the user interface for the SATM screen, where test cases are configured and executed. Describe about SATM screen with above problem statement.	CO2	10	L2
	OR			
4a	Imagine you are testing the Currency Converter System. A user tries to convert 150 GBP to JPY, but encounters an issue where the converted amount appears to be incorrect. Outline the steps you would take to investigate and resolve this problem, considering both the user interface and the underlying conversion engine. With a neat diagram explain the currency converter system with an example.	CO2	10	L2
b	Write a program to solve commission problem. Analyze it from the perspective of Equivalence Class Testing and derive the test cases.	CO2	10	L3

Nagarjuna College Of Engineering And Technology
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Nagarjuna College of Engineering & Technology
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Bangalore 562 164

Scheme & Solution

Exam: SE
Course Title: Software Testing & Quality Assurance
Duration of the Paper: 90 Mins
Total No of Pages: 01

Sem: 7th
Course Code: 20CST412
Max Marks: 40

CIE-1

Module-1

1 a	Define of Software Quality → 2M Distinguish between Static Quality attributes & Dynamic Quality attributes → 4M Explanation of 1 Dynamic attribute → 4M	10M
b	What is Test Case → 2M Explanation of life cycle Model for testing → 3M	5M
c	Explanation of Structural Testing → 5M	5M
2 a	Explanation of program behavior & tested behavior → 6M Venn Diagram → 4M	10M
b	Explanation of Errors, faults & failures → 3M Diagram → 2M	5M
c	Explanation of challenges do testers face in identifying all bugs → 5M	5M

Module 2

a. Writing a program to solve the Triangle problem → 6M
Writing the test cases → 4M — 10M

b. Explanation of SATM System with reference to the Statement → 6M.
Diagram → 4M — 10M

a. Explanation of Currency Converter System with example → 6M
Program → 4M — 10M

b. Writing a program to Solve commission problem → 6M
Deriving the Test Cases → 4M — 10M

Course Teacher

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USN

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous Institute, Affiliated to VTU)

Department of Computer Science and Engineering

Odd Semester 2023-24
Continuous Internal Evaluation – II

Course Name: Software Testing & Quality Assurance | Course Code: 20CS1752 | Semester: VII
Date: 6/9/2024 | Time: 11.00 AM to 12.30 PM | Max. Marks: 40

[Note: Answer any two full questions as indicated below]

		COs	Marks	RBT
	Module 3			
1a	Explain definition-Use testing with an example.	CO3	10	L2
b	Define DD path graph. Draw the DD path graph for triangle problem.	CO3	05	L1
c	Explain the data flow testing with early data flow analyses?	CO3	05	L2
	OR			
2a	Write a structured triangle program draw the program graph and find the DD paths. DD path graph for the triangle program?	CO3	10	L2
b	Explain the following terms with respect to fault based testing. a Equivalent testing b Coupling Effect	CO3	05	L2
c	Define test execution? Explain test case specification test suite adequacy criteria?	CO3	05	L1
	Module 4			
3a	You are a quality assurance lead in a software development project for an e-commerce platform. The project involves a team of developers, testers, and other stakeholders, Explain the software quality process?	CO4	10	L2
b	Discuss the following, i) Test case specification to test cases ii) Capture and replay.	CO4	10	L2
	OR			
4a	Justify the following statements, a Is the Sensitivity principle states that it better to fail every time than sometimes? b Is redundancy is the opposite of independence justify it?	CO4	10	L2
b	You are a test manager responsible for overseeing the testing of a complex financial software application. The development team has just completed a major update to the application, and your team needs to ensure comprehensive testing, Explain the adequacy criteria.	CO4	10	L2

Nagarjuna College Of Engineering & Technology
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Nagarjuna College of Engineering & Technology
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Scheme & Solution

Exam: IA | Sem: 7
Course Name: Software Testing & Quality Assurance | Course Code: 20CST152
Duration of the Paper: 90 Mins | Max Marks: 40
Total No. of Pages:

CIE - II

Module - 3

Q	Scheme	Marks
1.a	Explanation of definition - Use ~~Business~~ Testing → 6M Example → 4M	10M
b	Definition of DD-path graph → 2M Drawing DD path graph for Triangle problem → 3M	5M
c	Explanation of data flow testing → 5M	5M
2.a	Writing a program for structured Triangle program → 10M	10M
b	Explain the following, a> Equivalent Testing → 2½ M b> Coupling Effect → 2½ M	5M
	~~Module~~	
c.	Definition of Test Execution → 2M Explanation of Test Case Specification to test Suite adequacy Criteria → 3M	5M

Nagarjuna College Of Engineering, Dept. of CSE, PIN: 562164

Module - 4

9 a	Explanation of Software Quality process with reference to the problem Statement → 10M	10M
b	Discuss the following, i) Test case specification to test cases – 5M ii) Capture & Replay → 5M	10M
10 a	Justify the following Statements, i) Is the Sensitivity principle states that it better to fail every time than Sometimes? → 5M ii) Is Redundancy is the opposite of Independence → 5M	10M
b	Explanation of adequacy Criteria → 7M Test Cases → 3M	10M

Course Coordinator

HOD, Computer Science & Engg
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangalore-562110

USN										

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous Institute Affiliated to VTU)

Department of Computer Science and Engineering

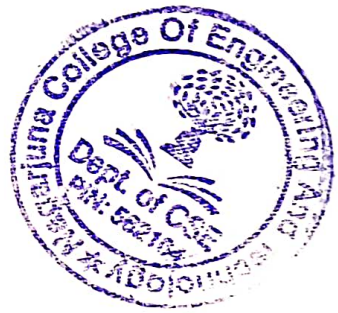
Odd Semester 2023-24
Continuous Internal Evaluation – III

Course Name: Software Testing & Quality Assurance | **Course Code**: 20CST752 | **Semester**: VII

Date: 25.01.2024 | **Time**: 11.00 AM to 12.30 PM | **Max. Marks**: 40

[Note: Answer any two full questions as indicated below]

	Module 1	COs	Marks	RBT
1a	Describe methods employed to assess the quality of software?	CO1	10	L2
b	What is testing and debugging? Explain with a neat diagram the steps in Testing.	CO1	10	L2
	OR			
2a	Discuss various types of Metrics used in software testing and relationship?	CO1	10	L2
b	What are Test cases? Name and explain how to identify Test cases.	CO1	10	L2
	Module 5			
3a	Imagine you are using a new software application for the first time. What specific features or aspects would you expect to be intuitive and user-friendly? Develop the people's quality expectations for software systems.	CO5	10	L3
b	Discuss the difference between testing and quality?	CO5	5	L2
c	Explain manufacturer's view of software quality.	CO5	5	L2
	OR			
4a	Compare McCall's quality model with the ISO 9126 quality model.	CO5	10	L3
b	The defect has caused a delay in the project timeline, and clients are expressing dissatisfaction. As a proactive measure, you decide to conduct a Root Cause Analysis (RCA) to address the issue. Discuss the purpose of root cause analysis.	CO5	5	L2
c	Examine the quality factors of McCall'c model.	CO5	5	L2



Nagarjuna College of Engineering & Technology

(An Autonomous College under VTU, Accredited with NAAC ")
Bangalore 562 164
Department of Computer Science & Engineering

Scheme & Solution (CIE 3)

Exam: BE	Sem: VII
Course Title: Software Testing and Quality Assurance	Course Code: 20CST752
Duration of the Paper: 90 Mins	Max. Marks: 40

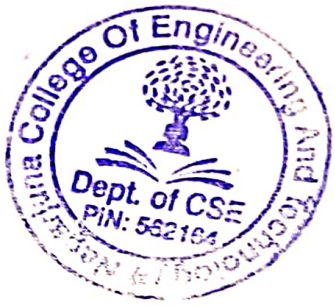
Total No. of Pages: 2

Module-1

1a. Listing the Quality attributes, (2M) — 10M

→ Usability
→ Reliability
→ Flexibility
→ Efficiency
→ Maintainence
→ Reusability.

Explanation 7M



b. What is Testing & debugging → 4M — 10M
Diagram for Steps in Testing → 3M
Explanation → 3M

2a. Explanation of Various types of Metrics in Software Testing → 6M — 10M
Explanation of Relationship → 4M

b. What are Test Cases → 2M — 10M
Planning how to Identify Test Cases → 4M
Explanation → 4M

Module -5

3a.	Explanation of people's quality expectations for Software System → 10M	10
b.	Differences between testing & quality (1M x 5 = 5M)	5M
c.	Explanation of Manufacturer's View of Software Quality → 5M	5M
4a.	Comparing Mccalls quality Model with the ISO 9126 quality Model. (5 Comparisions x 2M = 10M)	10M
4b.	Explanation - How to decide to conduct a Root Cause Analysis (RCA) → 3M → The purpose of Root cause Analysis → 2M	5M
c.	listing out quality factors of McCalls Model → 2M Explanation → 3M	5M

Course Coordinator

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Devanahalli Tq. Bangaluru-562

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY

IA FINAL REPORT

Stream	: BE		**Department**	:	Computer Science and Engineering
Semester	: Semester 7		**Section**	:	Division A
Subject Name	: SOFTWARE TESTING AND QUALITY ASSURANCE		**Subject Code**	:	20CST752
Batch Name	: Batch 1		**Max IA Marks**	:	50

Student Name	USN	CIE1	CIE2	CIE3	AAT1	AAT2	Total	See Marks
ABHINAV	1NC20CS001	14.00	17.50	18.50	5.00	4.50	46	
ABHINAYA A	1NC20CS002	10.50	12.00	18.50	5.00	4.50	40	
ABHISHEK ANAND	1NC20CS003	8.00	12.50	16.50	5.00	4.50	39	
ADITYA KUMAR	1NC20CS004	17.50	18.00	18.50	5.00	4.50	46	
AMODHINI H	1NC20CS005	15.00	A	18.00	5.00	4.50	43	
[illegible]ARNA JHA	1NC20CS006	A	19.50	19.50	5.00	4.50	49	
ARSHIYA S	1NC20CS007	11.50	A	15.50	5.00	4.50	37	
BHARAT BHUSHAN	1NC20CS008	A	18.50	19.00	5.00	4.50	47	
CHANDANA K M	1NC20CS009	A	17.50	19.00	5.00	4.50	46	
CHANDRAMOULI KUMAR DEV	1NC20CS010	14.50	18.00	18.50	5.00	4.50	46	
CHINMAYE B P	1NC20CS011	17.50	19.00	19.50	5.00	4.50	48	
D POOJITHA CHOWDARY	1NC20CS012	A	5.50	14.00	5.00	4.50	29	
DANISH KHURSHEED	1NC20CS013	A	3.50	12.50	5.00	4.00	25	
DEVIKA S M	1NC20CS014	A	17.00	18.50	5.00	4.50	45	
DHEERAJ KUMAR K	1NC20CS015	A	8.00	10.50	5.00	4.50	28	
DIGANTH B PATIL	1NC20CS016	A	12.50	14.00	5.00	3.00	35	
G Y SOWJANYA	1NC20CS017	10.50	12.50	15.00	5.00	4.50	37	
GAJULA BHAVANA	1NC20CS018	9.00	11.50	17.50	5.00	4.50	39	
GAUTAM KUMAR	1NC20CS019	4.50	13.50	18.00	5.00	4.50	41	
GOWTHAM N	1NC20CS020	14.50	16.50	19.00	5.00	4.50	45	
H A VARSHINI	1NC20CS021	A	18.50	19.50	5.00	4.50	48	
HARSHITHA G	1NC20CS022	17.00	A	19.00	5.00	4.50	46	
HARSHITHA H B	1NC20CS023	A	14.50	17.50	5.00	4.50	42	
HEMANTHA S	1NC20CS024	13.50	A	19.00	5.00	4.50	42	
JAYANTH K	1NC20CS025	A	16.50	19.00	5.00	4.50	45	
KADIRI KRISHNA VAMSI	1NC20CS026	A	13.50	16.00	5.00	4.50	39	
KARTHIK P R	1NC20CS027	A	16.50	18.00	5.00	4.50	44	
KAVYA S	1NC20CS028	3.50	18.00	19.50	5.00	4.50	47	
LAKSHMI K L	1NC20CS029	A	16.50	18.00	5.00	4.00	44	
LUBNA SHAFI	1NC20CS030	16.50	A	18.00	5.00	4.50	44	
MADHUSHALINI	1NC20CS031	A	12.50	17.50	5.00	4.50	40	
MADHUSHREE C R	1NC20CS032	14.50	14.00	17.00	5.00	4.50	41	
MALLIKARJUNA R	1NC20CS033	A	16.00	17.00	5.00	4.50	43	
MANJESH V	1NC20CS034	A	16.00	12.00	5.00	4.50	38	
MANJULA G S	1NC20CS035	14.50	19.00	A	5.00	4.50	43	
MANNE VISWANADH	1NC20CS036	A	A	A	A	A		
MANOJ A	1NC20CS037	13.50	18.00	A	5.00	4.50	[illegible]	
MANOJ H S	1NC20CS038	A	18.50	17.00	5.00	4.50	48	
MAURYA AMANKUMAR DINESHKUMAR	1NC20CS039	A	15.00	14.50	5.00	4.50	39	

Signature of Staff Member: Verified By: Head of Department

Date: [illegible]

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY

IA FINAL REPORT

Stream	: BE		**Department**	:	Computer Science and Engineerir
Semester	: Semester 7		**Section**	:	Division A
Subject Name	: SOFTWARE TESTING AND QUALITY ASSURANCE		**Subject Code**	:	20CST752
Batch Name	: Batch 1		**Max IA Marks**	:	50

Student Name	USN	CIE1	CIE2	CIE3	AAT1	AAT2	Total	See Marks
MD AFWANULLA SHARIFF	1NC20CS040	A	17.50	19.00	5.00	4.50	46	
MD SHAHRUKH ALAM KHAN	1NC20CS041	A	13.50	15.00	5.00	4.50	38	

Nagarjuna College Of Engineering & Technology
Dept. of CSE
PIN: 562164

Signature of Staff Member

Verified By

Head of Department

Date: 02-Feb-2024 11:23:55

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY

IA FINAL REPORT

Stream : BE
Semester : Semester 7
Subject Name : SOFTWARE TESTING AND QUALITY ASSURANCE
Batch Name : Batch 2

Department : Computer Science and Engineering
Section : Division A
Subject Code : 20CST752
Max IA Marks : 50

Student Name	USN	CIE1	CIE2	CIE3	AAT1	AAT2	Total	See Marks
MITHUN KUMAR D N	1NC20CS042	14.00	18.50	19.00	5.00	4.50	47	
MOHAMMAD NAWAZ	1NC20CS043	17.00	18.00	A	5.00	4.00	44	
MOHAN B V	1NC20CS044	8.50	18.00	19.00	5.00	4.50	47	
MONIKA S P	1NC20CS045	15.50	18.00	19.50	5.00	4.50	47	
MUNISH GOWDA K	1NC20CS046	A	18.00	19.00	5.00	4.50	47	
MUSKAN J B	1NC20CS047	A	17.00	19.00	5.00	4.50	46	
NANDISH J K	1NC20CS048	A	18.50	19.00	5.00	4.50	47	
NANDU SHREE P N	1NC20CS049	A	15.00	17.50	5.00	4.50	42	
NIKITHA RAJ K R	1NC20CS050	13.50	19.00	19.50	5.00	4.50	48	
NIRAJ KUMAR	1NC20CS051	A	6.50	15.00	5.00	4.00	31	
NISARGA K R	1NC20CS052	A	18.50	19.00	5.00	4.50	47	
PRATHIBHA B N	1NC20CS053	A	18.50	19.00	5.00	4.50	47	
PRIYANKA N	1NC20CS054	16.50	17.50	A	5.00	4.50	44	
PUNITH GOWDA S C	1NC20CS055	7.50	19.00	19.00	5.00	4.50	48	
RACHANA S S	1NC20CS056	A	17.00	19.00	5.00	4.50	46	
RAJESH KUMAWAT	1NC20CS057	7.50	15.00	17.00	5.00	4.50	42	
RAKESH ANNAPPA NAIK	1NC20CS058	11.00	14.50	A	5.00	4.50	35	
ROOPA U	1NC20CS059	12.00	18.50	18.50	5.00	4.50	47	
ROY VIVEK TAPAN	1NC20CS060	0.50	6.50	14.00	5.00	4.50	30	
SACHIN C	1NC20CS061	A	16.00	17.50	5.00	4.50	43	
SAGAR BYADAGI	1NC20CS062	16.50	17.00	19.00	5.00	4.50	46	
SAHANA S D	1NC20CS063	11.00	17.00	19.00	5.00	4.50	46	
SANDEEP KUMAR	1NC20CS065	A	9.50	16.50	5.00	4.50	36	
SHIVAM YADAV	1NC20CS066	9.50	16.50	19.50	5.00	4.50	45	
SINDHURA S REDDY	1NC20CS067	A	16.00	17.00	5.00	4.50	43	
SIRISHA S	1NC20CS068	A	18.00	19.00	5.00	4.50	47	
SOURAV KUMAR	1NC20CS069	A	8.50	15.50	5.00	4.50	34	
SRIKAR R	1NC20CS070	A	9.50	17.50	5.00	4.00	36	
T Y RAHUL KUMAR	1NC20CS071	12.00	A	18.50	5.00	4.50	40	
TEJAS G N	1NC20CS072	9.00	17.50	19.00	5.00	4.50	45	
TITAME SIDDHANT RAMESH	1NC20CS073	4.00	17.50	19.00	5.00	4.50	45	
VANDANA S	1NC20CS074	17.50	19.50	A	5.00	4.50	47	
VINAY R G	1NC20CS075	17.50	19.50	19.00	5.00	4.50	48	
YASHASWINI P	1NC20CS077	A	19.50	19.50	5.00	4.50	49	
YENUGULA SAI SREE	1NC20CS078	9.50	18.00	18.50	5.00	4.50	45	
IMRAN MANZOOR KUMAR	1NC20CS079	6.50	13.50	16.50	5.00	4.50	40	
PUSHTIRAJ H M	1NC21CS401	A	A	A	A	A	0	
RAM KUMAR S	1NC21CS402	A	10.00	17.00	5.00	3.50	36	

Signature of Staff Member:

Verified By:

Head of Department

Date: 09-Feb-2024 01:11:53

HOD, Computer Science & Engg
Nagarjuna College of Engg. & Technolog
Devanahalli Tq. Bangaluru-56210

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Remedial Classes Circular
Odd Semester 2023-24

The following students from 7th Sem A section are hereby informed to attend Remedial classes for the course **Software Testing & Quality Assurance (20CST752).**

Sl. No	USN	Names
1.	1NC20CS003	ABHISHEK ANAND
2.	1NC20CS018	GAJULA BHAVANA
3.	1NC20CS019	GAUTAM KUMAR

Signature of Staff

HOD

HOD, Computer Science & Engg
Nagarjuna College of Engg. & Technolog
Devanahalli Tq. Bangaluru-56216

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ATTENDANCE OF SLOW LEARNERS

Academic Year: 2023-2024
Semester: 7th Sem A
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Sl. No	USN	Names	6/12	6/12	8/12	13/12	15/12	20/12
1.	1NC20CS003	ABHISHEK ANAND	Abhishek	Abhishek	Abhishek	Abhishek	Abhishek	Abhishek
2.	1NC20CS018	GAJULA BHAVANA	Gajula	Gajula	Gajula	Gajula	Gajula	Gajula
3.	1NC20CS019	GAUTAM KUMAR	Gautam K	Gautam K	Gautam K	Gautam K	Gautam K	Gautam K

Faculty

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Nagarjuna College of Engg. & Technolog.
Devanahalli Tq. Bangaluru-56216

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

Academic Year: 2023-2024
Semester: 7th Sem A
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Impact Analysis of Slow Learners after CIE 2

Sn No	USN	Name	CIE 1 Marks	CIE 2 Marks	Activity conducted	Any progress in performance? Justify
1.	1NC20CS003	ABHISHEK ANAND	16	25	Remedial Class	improved
2.	1NC20CS018	GAJULA BHAVANA	18	23	Remedial Class	improved
3.	1NC20CS019	GAUTAM KUMAR	9	27	Remedial Class	improved

Faculty Incharge

HOD, CSE

HOD, Computer Science & Engg.
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangaluru-562164

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Remedial Classes Circular

Odd Semester 2023-24

The following students from 7th Sem A section are hereby informed to attend Remedial classes for the course **Software Testing & Quality Assurance (20CST752).**

Sl. No	Names	USN
1.	D POOJITHA CHOWDARY	1NC20CS012
2.	DANISH KHURSHEED	1NC20CS013
3.	DHEERAJ KUMAR K	1NC20CS015

Signature of Staff

HOD

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Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangaluru-562164

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ATTENDANCE OF SLOW LEARNERS

Academic Year: 2023-2024
Semester: 7th Sem A
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Sl. No	USN	Names	9/1	11/1	12/1	17/1	19/1	22/1
1.	1NC20CS012	D POOJITHA CHOWDARY	Boojitha	Boojitha	Boojitha	Boojitha	Boojitha	Boojitha
2.	1NC20CS013	DANISH KHURSHEED	Danish	Danish	Danish	Danish	Danish	Danish
3.	1NC20CS015	DHEERAJ KUMAR K	Dheer	Dheer	Dheer	Dheer	Dheer	Dheer

Faculty

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Nagarjuna College of Engg. & Technolog
Devanahalli Tq. Baengaluru-562

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

Academic Year: 2023-2024
Semester: 7th Sem A
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Impact Analysis of Slow Learners after CIE 3

Sl. No.	Name	USN	CIE 2 Marks	CIE 3 Marks	Activity conducted	Any progress in performance? Justify
1.	D POOJITHA CHOWDARY	1NC20CS012	11	28	Remedial Class	improved
2.	DANISH KHURSHEED	1NC20CS013	07	25	Remedial Class	improved
3.	DHEERAJ KUMAR K	1NC20CS015	16	21	Remedial Class	improved

Faculty Incharge

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Nagarjuna College of Engg. & Technolo
Devanahalli Tq. Bangaluru-5621

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

Academic Year: 2023-2024
Semester: 7th Sem A
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Outcome

1. Regular follow up of slow learners
2. Records based on student progress on timely basis
3. Monitoring the improvement in the progress with regular follow up.

Faculty Incharge

HOD CSE

HOD, Computer Science & Engg.
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangaluru-562164

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Remedial Classes Circular

Even Semester 2022-23

The following students from 7th Sem B section are hereby informed to attend Remedial classes for the course **Software Testing & Quality Assurance (20CST752)**.

Sl. No	USN	Names
1.	1NC20CS044	MOHAN B V
2.	1NC20CS055	PUNITH GOWDA S C
3.	1NC20CS057	RAJESH KUMAWAT
4.	1NC20CS060	ROY VIVEK TAPAN
5.	1NC20CS066	SHIVAM YADAV
6.	1NC20CS072	TEJAS G N
7.	1NC20CS073	TITAME SIDDHANT RAMESH
8.	1NC20CS079	IMRAN MANZOOR KUMAR

Signature of Staff

HOD

HOD, Computer Science & Engg
Nagarjuna College of Engg. & Technolog
Devanahalli Tq. Bangaluru-5621

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ATTENDANCE OF SLOW LEARNERS

Academic Year: 2023-2024
Semester: 7th Sem B
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Sl. No	USN	Names	6/12	6/12	8/12	13/12	15/12	20/12
1.	1NC20CS044	MOHAN B V						
2.	1NC20CS055	PUNITH GOWDA S C						
3.	1NC20CS057	RAJESH KUMAWAT						
4.	1NC20CS060	ROY VIVEK TAPAN						
5.	1NC20CS066	SHIVAM YADAV						
6.	1NC20CS072	TEJAS G N						
7.	1NC20CS073	TITAME SIDDHANT RAMESH						
8.	1NC20CS079	IMRAN MANZOOR KUMAR						

Faculty

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Devanahalli Tq. Bangaluru-562164

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ATTENDANCE OF SLOW LEARNERS

Academic Year: 2023-2024
Semester: 7th Sem B
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Sl. No	USN	Names	6/12	6/12	8/12	13/12	15/12	20/12
1.	1NC20CS044	MOHAN B V						
2.	1NC20CS055	PUNITH GOWDA S C						
3.	1NC20CS057	RAJESH KUMAWAT						
4.	1NC20CS060	ROY VIVEK TAPAN						
5.	1NC20CS066	SHIVAM YADAV						
6.	1NC20CS072	TEJAS G N						
7.	1NC20CS073	TITAME SIDDHANT RAMESH						
8.	1NC20CS079	IMRAN MANZOOR KUMAR						

Faculty

HOD

HOD, Computer Science & Eng
Nagarjuna College of Engg. & Technolo.
Devanahalli Tq. Bengaluru-562157.

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

Academic Year: 2023-2024
Semester: 7th Sem B
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Impact Analysis of Slow Learners after CIE 2

Sn No	USN	Name	CIE 1 Marks	CIE 2 Marks	Activity conducted	Any progress in performance? Justify
1.	1NC20CS044	MOHAN B V	17	36	Remedial Class	improved
2.	1NC20CS055	PUNITH GOWDA S C	15	38	Remedial Class	improved
3.	1NC20CS057	RAJESH KUMAWAT	15	30	Remedial Class	improved
4.	1NC20CS060	ROY VIVEK TAPAN	1	13	Remedial Class	Performance not improved since proper preparation was done
5.	1NC20CS066	SHIVAM YADAV	19	33	Remedial Class	improved
6.	1NC20CS072	TEJAS G N	18	35	Remedial Class	improved
7.	1NC20CS073	TITAME SIDDHANT RAMESH	8	35	Remedial Class	improved
8.	1NC20CS079	IMRAN MANZOOR KUMAR	13	27	Remedial Class	improved

Faculty Incharge

HOD CSE

HOD, Computer Science & Engg.
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangalore-562164

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Remedial Classes Circular

Even Semester 2022-23

The following students from 7th Sem B section are hereby informed to attend Remedial classes for the course **Software Testing & Quality Assurance (20CST752)**.

Sl. No	Names	USN
1.	NIRAJ KUMAR	1NC20CS051
2.	ROY VIVEK TAPAN	1NC20CS060
3.	SANDEEP KUMAR	1NC20CS065
4.	SOURAV KUMAR	1NC20CS069
5.	SRIKAR R	1NC20CS070

Signature of Staff

HOD

HOD, Computer Science & Engg
Nagarjuna College of Engg. & Technolo
Devanahalli Tq. Bangaluru-562

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ATTENDANCE OF SLOW LEARNERS

Academic Year: 2023-2024
Semester: 7th Sem B
Course Name: Software Testing & Quality Assurance
Course Code: 20CST752

Sl. No	USN	Names	9/1	11/1	12/1	17/1	19/1
1.	NIRAJ KUMAR	1NC20CS051	NK	NK	NK	NK	NK
2.	ROY VIVEK TAPAN	1NC20CS060	Roy	Roy	Roy	Roy	Roy
3.	SANDEEP KUMAR	1NC20CS065	S	S	S	S	S
4.	SOURAV KUMAR	1NC20CS069	Sou	Sou	Sou	Sou	Sou
5.	SRIKAR R	1NC20CS070	Srik	Srik	Srik	Srik	Srik

Faculty

HOD

HOD, Computer Science & Engg
Nagarjuna College of Engg. & Technolo
Devanahalli Tq. Bangaluru-5621

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

Academic Year: 2023-2024
Semester: 7th Sem B
Course Name: Software Testing & Quality Assurance
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Impact Analysis of Slow Learners after CIE 3

Sl. No.	Name	USN	CIE 2 Marks	CIE 3 Marks	Activity conducted	Any progress in performance? Justify
1.	NIRAJ KUMAR	1NC20CS051	13	30	Remedial Class	improved
2.	ROY VIVEK TAPAN	1NC20CS060	13	28	Remedial Class	improved
3.	SANDEEP KUMAR	1NC20CS065	19	33	Remedial Class	improved
4.	SOURAV KUMAR	1NC20CS069	17	31	Remedial Class	improved
5.	SRIKAR R	1NC20CS070	19	35	Remedial Class	improved

Faculty Incharge

HOD CSE

HOD, Computer Science & Engg
Nagarjuna College of Engg. & Technolo
Devanahalli Tq. Bangaluru-562

NAGARJUNA
College of Engineering & Technology

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

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Outcome

1. Regular follow up of slow learners
2. Records based on student progress on timely basis
3. Monitoring the improvement in the progress with regular follow up.

Faculty Incharge

HOD CSE

HOD, Computer Science & Engg.
Nagarjuna College of Engg. & Technology
Devanahalli Tq. Bangaluru-56

Nagarjuna College of Engineering and Technology, Bangalore

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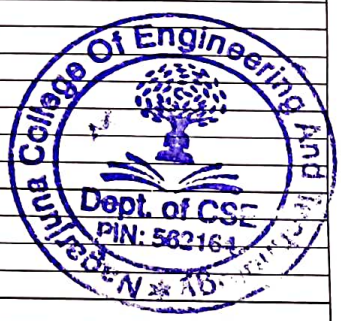
STUDENT FEEDBACK ANALYSIS REPORT FOR THE ACADEMIC SESSION - EVEN SEMESTER

Name	Subject	Branch/Sem/Section	No. of students	85-100 Points	70-84 Points	Less than 70	Avg Points
Mr GOPINATH A R	SOFTWARE TESTING AND QUALITY ASSURANCE (20CST752)	BE-CS Semester 7 SEC A	48			48	95.75

SI NO	Question	Excellent	Very Good	Good	Satisfactory	Poor
1	Fairness in Assessment	41	5	1	1	0
2	Approachability and Availability for Students	42	4	1	1	0
3	Coverage of Syllabus	39	6	2	1	0
4	Response to Students Questions	42	3	2	1	0
5	Maintaining Class Control and Discipline	42	3	2	1	0
6	Regularity and Punctuality in taking class	40	6	1	1	0
7	Delivery with real time examples	42	4	1	1	0
8	Clarity of Communication	41	5	1	1	0
9	Presentation Style of the Subject	41	5	1	1	0
10	Faculty Preparedness for the Class	41	5	1	1	0
	Total Count	411	46	13	10	0

Remarks from students

1	Abcd
2	.
3	????
4	.
5	No
6	No
7	Good
8	Good
9	
10	Good
11	Good ????
12	
13	Fine ????
14	Good
15	Good
16	Nice????
17	Super
18	
19	Excellent
20	
21	Excellent
22	Verygood
23	
24	No
25	No
26	.
27	....
28	Very Good teaching Quality Education
29	Teaching is very good
30	Nothing



STUDENT FEEDBACK ANALYSIS REPORT FOR THE ACADEMIC SESSION - EVEN SEMESTER

31	Nothing
32	Nice
33	
34	Excellent
35	Nothing
36	Nothing
37	The teaching is great but a lot of time is taken to cover concepts.
38	Nothing

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