

Department of B. Voc. (Software Development & System Administration)

St. Joseph's College (Autonomous), Trichy

Skill Component: Syllabus 2019-20

Sem	Part	Code	Course	Hr	Cr
II	Lab	SSC/Q0503 A	HTML 5 & CSS 3	3	3
		SSC/Q0503 B	MOOC	2	2
		SSC/Q0503 C	Photoshop	3	3
		SSC/Q0503 D	Technical NOS	2	2
	Theory	SSC/Q0503 E	Functional English – II	2	2
		SSC/Q0503 F	Basic Mathematics – II	2	2
		SSC/Q0503 G	Office Etiquettes	2	2
		SSC/Q0503 H	Verbal Ability	2	2
Total for Semester II				18	18
IV	Lab	SSC/Q0509 A	Advanced Java	3	3
		SSC/Q0509 B	Test Automation	2	2
		SSC/Q0509 C1	System Concepts – II	1	1
		SSC/Q0509 C2	Technical NOS	2	2
		SSC/Q0509 D	MOOC	2	2
	Theory	SSC/Q0509 E	Reasoning – II	2	2
		SSC/Q0509 F	Data Analysis & Interpretation	2	2
		SSC/Q0509 G	Test Case Execution	2	2
SSC/Q0509 H	Managing Work Environment – I	2	2		
Total for Semester IV				18	18
VI	Lab	SSC/Q0501 A	PHP and MySQL	3	3
		SSC/Q0501 B	Android	3	3
		SSC/Q0501 C	R	2	2
		SSC/Q0501 D1	Project Phase II	2	2
		SSC/Q0501 D2	Technical NOS	2	2
	Theory	SSC/Q0501 E	Quantitative Aptitude – II	2	2
		SSC/Q0501 F	Managing Work Environment – II	2	2
		SSC/Q0501 G	Comprehensive Examination	1	1
SSC/Q0501 H	Project Documentation	1	1		
Total for Semester VI				18	18

Lab: HTML 5 & CSS 3

HTML 5

Basic Design Elements

1. Web Links, Images, Lists
2. Tables and Forms

Advanced Design Elements

3. Semantic Elements and Canvas
4. SVG, Drag and Drop
5. Audio, Video and Geo-Location

CSS 3

6. Styles and Classes, Text Formatting, Laying out a Page Structure
7. Positioning Images relative to Text, Box-model
8. Font and Text Effects, 2D & 3D Transformation

Application

- a) Department Website
- b) Job Portal

Sem. II
SSC/Q0503 B

Hours/Week: 2
Credits: 2

Lab: MOOC



Lab: Photoshop

Basic Tools

1. Cut, Copy, Paste using Selection Tools
2. Lasso Tool & Transform and Opacity
3. Magic Wand Tool & Invert Selection

Image Manipulation using Colour Modes

4. Paint Bucket, Colour Picker & Brush Tool
5. Layers & Eraser Tool

Image Transformation & Correction

6. Image, Text and Transform Tool
7. Colour Balance
8. Crop and Canvas

Advanced Tools

9. Clone Stamp and Pattern Stamp Tool
10. Blur, Sharpen, Smudge Tool
11. Dodge, Burn, Sponge Tool

Filters

Application

- a) Student ID Card
- b) Birthday /Festival Card
- c) Department Banner

Sem. II
SSC/Q0503 D

Hours/Week: 2
Credits: 2

Lab: Technical NOS

- SSC/N0501 – Contribute to the design of software products and applications
- SSC/N0503- Develop media content and graphical designs for software products and applications
- SSC/N9004 – Provide data / information in standard formats
- SSC/N9005- Develop your knowledge skills and competence

Reference

<https://www.sscnasscom.com/qualification-pack/SSC/Q0503/>

Functional English – II

Listening

- Listening to a speech
- Listening to a news
- Listening to a Reader
- Listening to a Lecture
- Listening Test
- Listening Test

Speaking

- Delivering a speech
- Self-Introduction
- Introducing someone
- Giving direction
- Speaking test
- Speaking test

Reading

- Reading newspaper
- Reading magazine
- Reading a short story
- Reading instruction
- Reading test
- Reading test

Writing

- Writing sentences
- Writing a paragraph
- Writing an essay
- Writing letters
- Written test

Sem. II
SSC/Q0503 F

Hours/Week: 2
Credits: 2

Basic Mathematics – II

Module I: Arithmetic Progression (4 hrs)

Series - Sequences

Module II: Logics (8 hrs)

Proposition- Implication – Tautology – Contradiction

Boolean Expression

Module III: Relations (8 hrs)

Operations on Relations - Equivalence Relations & Partitions- Partial
Orders - Ordered Sets

Module IV: Number Systems (4 hrs)

Decimal, Binary, Octal, Hexadecimal Conversion

Binary Addition, Subtraction and Multiplication

Office Etiquettes

- Module 01: Business Communication Etiquette (3 hrs)**
Introducing Yourself - Face To Face Communication - Business Communication over the Phone - Business Communication through Email
- Module 2: Building a Professional Image (3 hrs)**
Building a Professional Image – Look the Part – Act the Part- Use Positive body Language- Make sure your e-life matches your professional Image
- Module 03: Office Gossip Etiquette (3 hrs)**
Learn what gossip is, how to respond to it, and how to avoid it. Don't Ever Vent- Learn to Identify Trigger Situations and Topics - Change the Subject smoothly- Never Repeat Anything That Shouldn't Be repeated
- Module 04: Business Dress Etiquette (3 hrs)**
Office-appropriate cloths – avoid strong fragrances – wear neat, polished shoes – keep facial hair groomed
- Module 05: Email Etiquette (3 hrs)**
Clear subject line - don't forget your signature – professional salutation – don't use humor- reply to all emails
- Module 06: Social Media Etiquette (3 hrs)**
Don't mix business and pleasure – avoid over-sharing – don't misrepresent yourself – build a legacy for the future.
- Module 07: Job Interview Etiquette (3 hrs)**
Greet your interviewers – look people in eye and smile – firm handshake – make sure your cell phone is off
- Module 08: Visitor Etiquette (3 hrs)**
Arrive with a gift – Buy your own groceries – keep common areas clean – buy your own groceries

Sem. II
SSC/Q0503 H

Hours/Week: 2
Credits: 2

Verbal Ability

- Spotting Errors
- Antonyms
- Spellings
- Ordering of Words
- Sentence Improvement
- Ordering of Sentences
- Closet Test
- One-Word Substitutes
- Change of Voice
- Verbal Analogies
- Synonyms
- Selecting Words
- Sentence Formation
- Sentence Correction
- Completing Statements

Note: Each topic will have 2 hours discussion

Sem. IV
SSC/Q0509 A

Hours/Week: 3
Credits: 3

Lab: Advanced Java Programming

Servlets

1. Simple Servlet
2. Servlet With JDBC
3. Session Management
4. Cookie Management

java.util Package

5. Array List Class
6. Vector Class
7. Dictionary Class

JSP

8. Request / Response Object
9. jsp:include Tag , Param Tag

EJB

10. Session Bean

java.Lang Package

11. Math Class
12. String Buffer Class

Sem. IV

SSC/Q0509 B

Hours/Week: 2

Credits: 2

Lab: Test Automation

Writing Test Cases

1. Authentication Module
2. Web Portal

Selenium

3. Web driver script using Java
4. Test Amazon login
5. Test Web portal using form element
6. Test Checkbox and radio button
7. Test dropdown list
8. Test Image Upload button
9. Test File Download
10. Test Web Page using Web driver

Lab: System Concepts – II

1. Red Hat Enterprise Linux (RHEL) version-6 Installation
2. Basic Linux Commands - I
Listing Files - Listing Hidden Files - Creating and Viewing Files -
Deleting Files - Moving and Renaming Files - Removing Directories-
Rename Directories – Man – History – Clear – Paste
3. Basic Linux Commands – II
date – free – grep – ps – kill – whereis – df – du – echo – passwd
4. Basic Linux Commands – III
find – locate – who – sleep – printf
5. Creating user, group and assigning rights
6. Shell Script to list all files in a directory
7. AWK Script to find the number of characters, words, lines in a file
8. Assign IP Address

Sem. IV
SSC/Q0509 C2

Hours/Week: 2
Credits: 2

Lab: Technical NOS

- SSC/N0506 – Assist in performing software construction and software-testing entry level tasks in the IT Services industry
- SSC/N0507 – Employ Programming Lab Oriented Pedagogical Skills as a Master Trainer in the IT Industry
- SSC/N0508 – Engage Pedagogical Skills as a Master Trainer
- SSC/N9005 – Develop your knowledge, skills and competence

Reference

<https://www.sscnasscom.com/qualification-pack/SSC/Q0509/>

Sem. IV
SSC/Q0509 D

Hours/Week: 2
Credits: 2

Lab: MOOC



Reasoning – II

Module I (6 hrs)

Logical Reasoning – Logic – Statements: Arguments – Assumptions – Deriving conclusions from passages – Theme Detection – Question Statements.

Module II (6 hrs)

Non-Verbal Reasoning – Series – Analogy – Classification – Analytical Reasoning.

Module III (6 hrs)

Mirror Images – Water Images – Embedded Figures – Completion of Incomplete Pattern.

Module IV (6 hrs)

Figure Matrix – Paper Folding – Paper Cutting – Rule Detection – Grouping of Identical Figures.

Module V (6 hrs)

Cubes and Dice – Dot Situation – Construction of Squares and Triangles – Figure Formation and Analysis.

References

1. A Modern Approach to Verbal & Non-Verbal Reasoning – RS Aggrawal – S Chand & Company Ltd.
2. Wikipedia (2014 & 2015) Critical thinking
3. Wikipedia (2015) Conceptualization
4. Peter Flach (2007) Simply Logical Intelligent Reasoning by Example John Wiley & Sons

Sem. IV
SSC/Q0509 F

Hours/Week: 2
Credits: 2

Data Analysis & Interpretation

Module I (7 hrs)

Bar Graph

Module II (7 hrs)

Line Chart

Module III (7 hrs)

Tabular Form

Module IV (7 hrs)

Pie Chart

References

Kundan K, "Data Interpretation Data Sufficiency & Series - Magical Book Series", Bsc Publishing Co Pvt. Ltd, 2014.

Software Testing

Module 1 (5 hrs)

Principles of Testing: Testing in Producing Software - Software Development Life Cycle Models: Phases of Software Project – Quality, Quality Assurance, and Quality control – Testing, Verification, and Validation.

Module 2 (5 hrs)

White Box Testing: Static Testing – Structural Testing – Challenges in White Box Testing - Black box testing: Why and When to Do Black Box Testing – How to Do Black Box Testing.

Module 3 (5 hrs)

Unit testing: what is unit testing – why we do unit testing-Integration Testing – Integration Testing as A Type Of Testing –Regression Testing: What is Regression Testing – Types of Regression Testing – When to do Regression Testing – How to Do Regression Testing.

Module 4 (7 hrs)

Introduction to automation testing: what is automation testing? Advantages and disadvantages of automation testing- Introduction to selenium: what is selenium- introduction to selenium webdriver-how to download and install selenium webdriver-locators in selenium: css, xpath and link etc.

Module 5 (6 hrs)

First selenium webdriver script: java code –selenium form web element- Textbox, Submit button, send keys(), and click()- mouse click and keyboard event-how to click an image in selenium webdriver- how to select value form dropdown using selenium webdriver-how to upload and download file using selenium webdriver.

Book for Study

Srinivasan Desikan and Goplalashwamy Ramesh, Software Testing – Principles and Practices, Pearson Education, 2010. [Modules 1-3]

Website references [Modules 4 & 5]

1. <https://www.guru99.com>
2. <https://www.toolsqa.com>

Sem. IV
SSC/Q0509 H

Hours/Week: 2
Credits: 2

Managing Work Environment – I

Module 1

Introduction Management- Meaning, scope and process of management, Managerial skills, Levels and roles.

Module 2

Planning and Decision-Making- Meaning, Scope and importance of planning, Strategy making: formulation vs crafting-model, Goal setting: vision, mission, objective, strategy, goals and targets, Management - by objectives, Decision making;

Module 3

Organizing- Division of work - Actuating and Directing- Leadership and collaboration, leader vs manger; Brief discussion on theories of- leadership, Motivating others; Content theories of motivation, Communication process;- barriers to communication.-Controlling

Module 4

Work – Meaning; Organisation: Meaning – Importance –Ways to Improve Your Work Environment.- Uses of Technology in work.

Module 5

Systematic work environment management - a natural part of the organization - Cooperation in work environment management - Work environment policy and procedure - The allocation of tasks in systematic work environment management - Examination and risk assessment.

References

- 1 Koontz, H. and Donnel C., Essentials of Management, McGraw Hill, New Delhi.
2. Drucker, Peter F: The Practice of Management N.Deming, Management : Principles and Guidilines, Wiley India.

Lab: PHP and MySQL

PHP

1. Conditional, Looping Statements
2. File Processing
3. Numerical and Associative Arrays
4. Built-in functions: String, Date & Array and User defined functions
5. Client side and Server side validation
6. Session Management
7. Cookie Management

MySQL

8. DDL, DML, DCL and TCL commands
9. Importing and Exporting database

PHP with MySQL

10. Sample Web Application: Library Management System
 - a) Authentication
 - b) Insert
 - c) Modification
 - d) Deletion
 - e) Search

Lab: Android

1. GUI Components, Fonts and Colours
2. Layout Managers and Event Listeners
3. Native Calculator Application
4. Adapters and Toast
5. Database operations
6. RSS Feed
7. Displaying Date and Time using Relative Layout
8. GPS Location information
9. Writes data to SD Card
10. Creates Alert based on receiving a Message

Sem. VI
SSC/Q0501 C

Hours/Week: 2
Credits: 2

Lab: R

1. R Data Types, Operators
2. R Matrix: Create, Print, Add Row & Column, Slice
3. Factor in R: Categorical & Continuous Variables
4. R Data Frame: Create, Append, Select & Subset
5. List in R: Create, Select Elements
6. R Data Frame Operations: Merge Data Frames: Full and Partial Match
7. Conditional and looping Statements
7. Functions in R. `apply()`, `lapply()`, `sapply()`, `tapply()`
8. Importing and Exporting Data
9. Charts
10. Plots

Sem. VI
SSC/Q0501 D1

Hours/Week: 2
Credits: 2

Lab: Project Phase II

- In the entire Sixth semester, students has to complete a Project within the campus with the available infrastructure in the Lab
- The students should prepare for the Project Lab and get the sign from the respective guides before entering into the lab
- If the student fails to get minimal number of signs from the respective guides he/she is not eligible to attend the level exam
- The student should submit a project report (2 copies) after completing his project

Sem. VI
SSC/Q0501 D2

Hours/Week: 2
Credits: 2

Lab: Technical NOS

- SSC/N0502 – Develop Software Code to Specification
- SSC/N9004 – Provide data / information in standard formats
- SSC/N0501 – Contribute to the design of software products and applications
- SSC/N9005 – Develop your knowledge, skills and competence

Reference

<https://www.sscnasscom.com/qualification-pack/SSC/Q0501/>

Sem. VI
SSC/Q0501 E

Hours/Week: 2
Credits: 2

Quantitative Aptitude – II

Module I (6 hrs)

Problems on Numbers – Square Roots – Cube Roots

Module II (6 hrs)

Problems on Age – Average – Permutation and Combination

Module III (6 hrs)

Percentage – Profit & Loss – Time & Work

Module IV (6 hrs)

Simple Interest – Compound Interest – Probability

Module V (6 hrs)

Time and Distance – Problems on Trains – Partnership

References

R.S. Aggarwal, “Quantitative Aptitude for Competitive Examinations”, Revised Edition, S. Chand and Co. Ltd, New Delhi, 2018.

Managing Work Environment – II

Module 1

Elements of Business Environment- Nature and factors in business environment, elements of economic environment, Political, legal environment, socio-cultural environment.

Module 2

Foundations of Organizational Behavior: The nature and functions - Individual Dimensions - Nature of human behavior; Personality; meaning; theories; Values attitudes and job satisfaction; Perception process.

Module 3

Foundations of Learning and Motivation: learning process; Theories of learning; content theories of motivation (brief discussion) Process theories of motivation;

Module 4

Organizational Dimensions- Leadership, Organizational culture; Work stress; Organizational change; Organizational development.

Module 5

SWOT Analysis- Hierarchy of strategic intent: strategic intent, vision, mission, business definition, and- goals and objectives; SWOT analysis: environmental appraisal and organizational appraisal.

References

1. Robins, S.P. and Sanghi, S.: Organizational Behavior, ed. xi, Pearson-Education, New Delhi.
2. Sakaran, U., Organizational Behavior, TMH, N. Delhi.
3. L.M. Prasad: Organization Theory and Behavior, HPH, New Delhi.

Sem. VI
SSC/Q0501 G

Hours/Week: 1
Credits: 1

Comprehensive Examination

Module I (9 hrs)

Foundations of Computer Science – C – Java

Module II (6 hrs)

System Concepts – I & II

Module III (9 hrs)

RDBMS - Software Engineering – DOT NET

Project Documentation

Number of Copies to be submitted for evaluation

Students should submit 2 copies of Project Report to the Department

1. One copy to be signed and returned to the student (Bonded Original)
2. One copy to be retained for the Department (Xerox)

Manuscript Preparation

- ❖ Standard A4 size paper may be used for preparing the copies.
- ❖ Margins: Set Normal (Top-2.5, Normal-2.5, Bottom-2.5, Left-2.5)
- ❖ Manuscript should be aligned with justified option
- ❖ Spell check and Grammar check should be done
- ❖ Each chapter should be preceded with a leaf page
- ❖ Page number should be at the bottom centre
- ❖ Page Number should begin from Chapter 1.
- ❖ 1.5 line space should be followed
- ❖ Text should properly punctuated and hyphenated
- ❖ Times New Roman Font should used
- ❖ Chapter Heading 16 pts Bold Caps
- ❖ Headings 14 pts Bold Title case
- ❖ Sub Headings 12 pts Bold Title case
- ❖ Sub-Sub Headings 12 pts Title case
- ❖ Bibliography should be similar to our Syllabus
- ❖ The size of project report should not exceed 75 pages of typed matter

CONTENTS

Title Page

Certificate Page

Acknowledgement

Company Certificate

Company Profile

Abstract

Table of Contents

Leaf Pages before each chapter

1. Introduction

1.1 About the Project

2. System Study

2.1 Existing System

2.2 Disadvantages of Existing System

2.3 Proposed System

2.4 Advantages of Existing System

2.5 Problem Definition and Description

3. System Analysis

3.1 Packages Selected

3.2 Resources Required

3.3 Use Case Diagram

3.4 Data Flow Diagram

4. System Design

4.1 Architectural Design

4.2 I/O Form Design

4.3 Tables

4.4 Normalization

4.5 Entity Relationship Diagram

4.6 Data Dictionary

Note:

4.1 to 4.6 are applicable to all Application side projects. For other type of projects follow the below:

4.1 Architectural Design

4.2 I/O Form Design

4.3 Tables (If your project contains)

4.4 Algorithms

4.5 Class Diagrams

- 4.6 Flowcharts
- 5. System Development
 - 5.1 Functional Documentation
 - 5.2 Special Features of the Language
 - 5.3 Pseudo Code
- 6. Testing
 - 6.1 Types of Testing Done
 - 6.2 Test Data and Output
- 7. User Manual
 - 7.1 Hardware Requirements
 - 7.2 Software Requirements
 - 7.3 Installation Procedure
 - 7.4 Sample I/O
 - 7.5 Error Messages
- 8. Conclusion
 - 8.1 Summary of the Project
 - 8.2 Future Enhancements

Bibliography

Appendix

Department of B. Voc. (Software Development & System Administration)

St. Joseph's College (Autonomous), Trichy

Skill Component: Assessment & Evaluation

Department of B.Voc. (SD & SA)
St. Joseph's College (Autonomous), Tiruchirappalli-620 002

**Skill Component - Assessment and Evaluation for
Level-4 (Junior Software Developer)**

Component	Marks allocated	Modules	Mode of Evaluation	Marks Split-up	No. of Hours		
Theory	150	C Debugging Test 1	Online / OMR	20	1 hour		
		C Debugging Test 2		20			
		C Debugging Level Exam		30			
		Windows and Web Operations		20			
		Basic Mathematics – I		30			
		Reading and Writing Skills		30			
Practical	450	Lab -C Programming (250 Marks)	Practical Test 1 (Internal)	50	3 Hours		
			Practical Test 2 (Internal)	50			
			Practical Level Exam	100			
			Viva	20			
			Record Note	10			
			Algorithm to Language Constructs / Drawing Flowchart	20			
		Lab - Office Automation (200 Marks)	Practical Test 1 (Internal)	50			
			Practical Test 2 (Internal)	50			
			Practical Exam	80			
			Viva	10			
			Record Note	10			
		Total Marks				600	

Note:

1) In Theory Component, Each Question carries 2 marks, No negative marks

**Skill Component - Assessment and Evaluation for
Level-5 (Web Developer)**

Component	Marks allocated	Modules	Evaluation Pattern	Marks Split-up	No. of Hours		
Theory	200	General Aptitude - I (Verbal Ability)	Online or OMR	50	1.15 Hours		
		Office Etiquette		50			
		Basic Mathematics – II		50			
		Functional English – II		50			
Practical	500	Lab – HTML5 & CSS 3 (300 Marks)	Practical Test 1 (Internal)	100	3 Hours		
			Practical Test 2 (Internal)	100			
			Practical Level Exam	80			
			Viva	10			
			Record Note	10			
		Lab - Photoshop (200 Marks)	Practical Test 1 (Internal)	50			
			Practical Test 2 (Internal)	50			
			Practical Level Exam	80			
			Viva	10			
			Record Note	10			
				Total Marks		700	

Evaluation

1) In Theory Component, Each Question carries 2 marks

**Skill Component - Assessment and Evaluation for
Level-6 (Master Trainer for Junior Software Developer)**

Odd Semester (Internal Evaluation)

Component	Marks allocated	Modules	Evaluation Pattern	Marks Split-up	No. of Hours
Theory	50	General Aptitude – I (Reasoning)	Online or OMR	10	30 Minutes
		Media & Content Creation		10	
		Java Debugging		20	
		Access And Outlook		10	
Practical	200	Lab – Java Programming (50 Marks)	Practical Test 1	25	3 Hours
			Practical Test 2	25	
		Lab – JavaScript & jQuery (50 Marks)	Practical Test 1	25	
			Practical Test 2	25	
		Lab – System Concepts – I (100 Marks)	Practical Test 1	50	
			Practical Test 2	50	
Total Marks				250	

Even Semester (Level Exam)

Component	Marks allocated	Modules	Evaluation Pattern	Marks Split-up	No. of Hours
Theory	100	General Aptitude - II (Reasoning)	Online or OMR	40	1 Hour
		Working with Colleagues		20	
		Software Testing		30	
		Data Interpretation		10	
Practical	350	Lab – Advanced Java (200 Marks)	Practical Test 1 (Internal)	50	3 Hours
			Practical Test 2 (Internal)	50	
			Record Note	10	
			Practical Level Exam	80	
			Viva	10	
		Lab – System Concepts - II (100 Marks)	Practical Test 1 (Internal)	25	
			Practical Test 2 (Internal)	25	
			Record Note	10	
			Practical Level Exam	30	
			Viva	10	
		Lab – Test Automation (50 Marks)	Practical Test 1 (Internal)	25	
Practical Test 2 (Internal)	25				
Total Marks				450	

Evaluation

1) In Theory Component, Each Question carries 2 marks

**Skill Component - Assessment and Evaluation for
Level-7 (Software Developer)
Odd Semester (Internal Evaluation)**

Component	Marks allocated	Modules	Evaluation Pattern	Marks Split-up	No. of Hours
Theory	50	Quantitative Aptitude - I	Online or OMR	30	30 Minutes
		Latest Trends in IT		20	
Practical	250	Lab – Distributed Technology (50 Marks)	Practical Test 1	25	2 Hours
			Practical Test 2	25	
		Lab – RDBMS (50 Marks)	Practical Test 1	25	
			Practical Test 2	25	
		Lab – Python (50 Marks)	Practical Test 1	25	
			Practical Test 2	25	
Lab – Project Phase – I (100 Marks)	Presentation	100			
Total Marks				300	

Even Semester (Level Exam)

Component	Marks allocated	Modules	Evaluation Pattern	Marks Split-up	No. of Hours
Theory	100	Quantitative Aptitude- II	Online or OMR	30	1 Hour
		Work Requirements		20	
		Comprehensive Exam		50	
Practical	300	Lab – Android (100 Marks)	Practical Test 1 (Internal)	25	3 Hours
			Practical Test 2 (Internal)	25	
			Record Note	05	
			Practical Level Exam	40	
			Viva	05	
		Lab – PHP (100 Marks)	Practical Test 1 (Internal)	25	
			Practical Test 2 (Internal)	25	
			Record Note	05	
			Practical Level Exam	40	
			Viva	05	
		Lab – Project Phase – II (50 Marks)	Documentation (Internal)		
			Review (Internal)	30	
			Viva-Voce	20	
		Lab – R (50 Marks)	Practical Test 1 (Internal)	25	
Practical Test 2 (Internal)	25				
Total Marks				400	

Evaluation In Theory Component, Each Question carries 2 marks