Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S5.1
Database Administration using oracle 10g (80 Marks)

1. Oracle Architectural Components **8 Hrs.**

1.1 The Oracle Architecture
1.2 Starting and stopping Oracle Instance
1.3 PFILE and SPFILE
1.4 Diagnostic Files and Alert Log File
1.5 Background Trace Files and User Trace File
1.6 Data Dictionary, Control files and Redo log files
1.7 Dynamic Performance Tables
1.8 Creating an Oracle Database

2. Automating Management **10 Hrs.**

2.1 Collecting Performance Statistics
2.2 Working with Automatic Workload Repository
2.3 Base Statistics and Metrics
2.4 Diagnosing Performance Statistics and Database Diagnostic Monitor
2.5 Automatic Shared Memory Management (ASMM)
2.6 Tuning Automatic Undo Retention and Checkpoint
2.7 Collecting Automatic Optimizer Statistics
2.8 Identifying the Advisory Framework
2.9 Automating Tasks and Resource Manager Enhancements
2.10 Automatic Session Switchback and Setting Idle Timeout
2.11 Creating a Mapping and Changes to Resource Allocation Method

3. Managing Tablespaces and Datafiles **10 Hrs.**

3.1 Tablespaces and Datafiles
3.2 General Storage Management
3.3 Managing Tablespaces
3.4 The SYSAUX Tablespace
3.5 Bigfile Tablespaces
3.6 Temporary Tablespace Groups
3.7 Making Partitioning Enhancements
3.8 Partition Maintenance Using EM Database Control
3.9 Partitioned Index Organized Tables (lOTs) and Leveraging Index Enhancements
3.10 Skipping Unusable Indexes

4. Moving Data and Managing the Scheduler **10 Hrs.**

4.1 Introducing Data Pump
4.2 Introducing the Architecture of Data Pump
4.3 Introducing Data Access Methods
4.4 Exploring the Advantages of Data Pump
4.5 Using Data Pump Clients
4.6 Using Cross-Platform Transportable Tablespaces
4.7 Writing and Projecting External Tables
4.8 Creating Basic Scheduler Components Using the Scheduler
4.9 Managing the Scheduler and Scheduler Concepts
4.10 Managing Advanced Scheduler Components

5. Backup, Recovery and High Availability **13 Hrs.**

5.1 Leveraging the Flash Recovery Area
5.2 Flash Recovery Area Occupants and SQL Commands
5.3 Flash Recovery Area Management and Directory Structure
5.4 Backing up the Flash Recovery Area
5.5 Performing Incremental and Incrementally Updated Backups
5.6 Recovery with Incrementally Updated Backups
5.7 Using Miscellaneous Backup Features
5.8 RMAN Command Changes
5.9 Online Backup Mode
5.10 Backing up Different Object Types with RMAN

6. Performance and Application Tuning **10 Hrs.**

6.1Managing Optimizer Statistics
6.2 Gathering Automatic Statistics
6.3 Leveraging Enhanced Query Optimization
6.4 Gathering Data Dictionary Statistics
6.5 Monitoring DML Tables

Reference Book–

1. OCP Oracle Database 10g - New Features for Administrators Exam Guide Sam R. Alapati (MCGRAW-HILL Publications)

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S5.2
Digital Image Processing using MATLAB (80 Marks)

1. Introduction to MATLAB **6 Hrs.**

- Advantages and Disadvantages of Matlab
- Matlab Environment, Using Matlab scratch pad
- Variable and arrays
- Multidimensional Arrays
- Scalar and array operation

2. Fundamentals of Image Processing **6 Hrs.**

- Digital image Representation
- Reading, Displaying, Writing Images
- Data Classes, Image Types
- Converting Between data classes and Image Types
- Introduction to M Function Programming

3. Intensity, Transformation and Spatial Filtering **8 Hrs.**

- Background
- Intensity Transformation Function
- Histogram Processing and Function Plotting
- Spatial Filtering

4. Frequency Domain Processing **7 Hrs.**

- 2-D Discrete Fourier Transform
- Computing and Visualizing the 2D DFT in Matlab
- Filtering in the frequency domain

5. Image Restoration **7 Hrs.**

- A model of the image Degradation / restoration process
- Noise Models
- Geometric Transformation and Image registration

6. Introduction to Color Image Processing **5 Hrs.**

- Color Image Representation in MATALB
- Converting to other Color Space

Reference Books –

1. Digital Image Processing and Algorithmic Approach By Madhuri A Joshi (PHI)

2. Digital Image Processing Using Matlab By Rafael C Gonzalez, Richard E Woods, Steven L Eddins

3. Fundamentals of Digital Image Processing By Anil Jain (Pearson)

4. Matlab Programming for Engineers (IE) By Stephen J Chapman (Thomson)

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S5.3
Visual Basic . Net (80 Marks)

1. Introduction to VB.Net **5 Hrs.**

- 1.1 What is .Net?
- 1.2 The Overview of .Net Framework
- 1.3 The Common Language Runtime
- 1.4 Visual Studio.Net startup
- 1.5 Visual Studio.Net
  - 1.5.1 Project Types
  - 1.5.2 Solution Explorer
  - 1.5.3 Code Windows
  - 1.5.4 Extended IntelliSense
  - 1.5.5 Properties Windows

2. Visual Basic - The Language **6 Hrs.**

- 2.1 Variables
- 2.2 Arrays
- 2.3 Flow Control Statements
- 2.4 Subroutines & Function
- 2.5 Arguments passing mechanism & Event Handler Arguments
- 2.6 Passing an unknown number of arguments & Named arguments

3. Working with Forms **12 Hrs.**

- 3.1 The Appearance of the Form
- 3.2 Properties & Events of the form
- 3.3 Building Dynamic Form at Run Time
- 3.4 Designing Menus
- 3.5 Text Box. Control
- 3.6 The ListBox, CheckedListBox, & ComboBox Control
- 3.7 The Common Dialog Control
- 3.8 The Rich Text Control
- 3.9 The TreeView & Listview control

4. Custom Class **6 Hrs.**

- 4.1 Building &using Custom class
- 4.2 Inheritance
- 4.3 Polymorphism
- 4.4 MyBase & MyClass Keywords

5. Handling Strings, Charters& Dates **2 Hrs.**

- 5.1 The Char & String Class
- 5.2 The DateTime Class

6. Working with Files & Folders **5 Hrs.**

- 6.1 Accessing Folders & Files
  - 6.1.1 Directory Class
  - 6.1.2 File Class
  - 6.1.3 Directory Info class
  - 6.1.4 FileInfo Class
  - 6.1.5 Path Class
- 6.2 Accessing Files

6.2.1 File Stream Class
6.2.2 StreamReader Class
6.2.3 Stream Writer Objects

7. Building Database Application with ADO.NET **7 Hrs.**

7.1 The Architecture of ADO.NET
7.2 Creating Dataset
7.3 Data binding
7.4 DataAdapter Object
7.5 The Command & DataReader Objects
7.6 The Structure of Dataset
7.7 The DataForm Wizard
7.8 transactions

Reference Books -

1. Mastering Visual Basic.Net By Evangelos Patroutsos (BPB Publication)
2. Visual Basic.Net Programming By Billy Hollis, Rockford Thotlog (Wrox Publication)
3. Professional VB.Net 2003 By Bill Evjen, Bills Hollis, (Wrox Publication)
4. Visual Basic.Net Programming Black Book By Steven Holzner
5. Beginning VB.Net (2^{nd} Edition)

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S5.4
Object Oriented Modelling and Design (80 Marks)

1. Introduction **4 Hrs.**

1.1 What is Object Oriented Development?
1.2 Object Oriented Themes
1.3 Evidence for Usefulness of Object Oriented Development

2. Modelling as a Design Technique **3 Hrs.**

2.1 Modelling
2.2 The Object Modelling Technique

3. Object Modelling **6 Hrs.**

3.1 Objects and Classes
3.2 Links and Association
3.3 Advanced Links and Association Concepts
3.4 Generalization and Inheritance
3.5 Grouping Constructs

4. Advanced Object Modelling **7 Hrs.**

4.1 Aggregation
4.2 Abstract Classes
4.3 Generalization as Extension and Restriction
4.4 Multiple Instances
4.5 Metadata
4.6 Candidate Keys
4.7 Constraints

5. Dynamic Modelling **6 Hrs.**

5.1 Events and states
5.2 Operations
5.3 Nested State Diagrams
5.4 Concurrency
5.5 Advanced Dynamic Modelling Concepts
5.6 Relation of Object and Dynamic models

6. Functional Modelling **4 Hrs.**

6.1 Functional Models
6.2 Data Flow Diagrams
6.3 Relation of Functional to Object and Dynamic models

7. Methodology Preview **5 Hrs.**

7.1 OMT as Software Engineering Methodology
7.2 The OMT Methodology
7.3 Impact of Object Oriented Approach

Text Book -

1. Object Oriented Modelling and Design By James Rumbaugh, Blaha, Premerlani, Eddy and Lorensen (Pearson Education – Low Price Edition)

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S5.5
Software Testing and Quality Assurance (80 Marks)

1. Quality Management **8 Hrs.**

- 1.1 Quality concepts
- 1.2 Software Quality Assurance
- 1.3 Software Reviews
- 1.4 Formal Technical Reviews
- 1.5 Statistical Software Quality Assurance
- 1.6 Software Reliability
- 1.7 The SQA Plan

2. Levels of Testing **6 Hrs.**

- 2.1 A Strategic Approach to software testing
- 2.2 Test strategies for Conventional Software
- 2.3 Unit Testing
- 2.4 Integration Testing
- 2.5 Validation Testing
- 2.6 System Testing
- 2.7 The Art of Debugging

3. Black Box & White Box Testing (Test Case Design Techniques) **6 Hrs.**

- 3.1 Structural Testing (White Box)
- 3.2 Basis path testing
- 3.3 Control structure testing
- 3.4 Functional Testing (Black Box)
- 3.5 Object Oriented Testing Methods
- 3.6 Testing for Specialized Environments, Architectures, and Applications

4. Product Metrics **8 Hrs.**

- 4.1 Software Quality
- 4.2 A framework for Product metrics
- 4.3 Metrics for Testing
    - 4.3.1 Halstead metrics applied to testing
    - 4.3.2 Metrics for object-oriented testing

5. Testing for WebApps **5 Hrs.**

- 5.1 Testing Concepts for WebApps
- 5.2 the testing process - An Overview
- 5.3 Content Testing
- 5.4 User interface testing
- 5.5 Component-level testing
- 5.6 Navigation Testing
- 5.7 Configuration testing
- 5.8 Security testing
- 5.9 Performance testing

6. Test Reporting and Defect Tracking **7 Hrs.**

- 6.1 Purpose
- 6.2 Defect Report Format (IEEE 829)
- 6.3 Defect Submission
- 6.4 Defect Life Cycle

6.5 Defect Resolution Types
6.6 Types of Defects
6.7 Defect Tracking System
6.8 Test Closure
6.9 User Acceptance Testing

7. Introduction to Winrunner **8 Hrs.**

7.1 Testing Process
7.2 Test Script Definition
7.3 Add-in manager
7.4 The Winrunner Welcome Screen
7.5 Winrunner Editor Buttons
7.6 Recording Modes
7.7 Stop Recording
7.8 Run Modes

8. Introduction to QTP 8.2 **6 Hrs.**

8.1 Testing Process
8.2 QuickTestPro Window
8.3 Add-in manager Window
8.4 QTP Testing Framework
8.5 Recording Modes

Reference Books –

1. Software Engineering R. Pressmen – 6th Ed

2. Software Testing Concepts and Tools

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S6.6
ASP.NET through C#.NET (80 Marks)

1. Introduction to ASP.NET through C#.NET **8 Hrs.**

- 1.1. ASP.NET
- 1.2. Variables
- 1.3. Expressions
- 1.4. Flow control
- 1.5. Defining & using controls
- 1.6. Struct functions
- 1.7. Overloading functions and Delegates
- 1.8. Class
  - 1.8.1. Member definition
  - 1.8.2. VS member wizard
  - 1.8.3. VS member properties
  - 1.8.4. class member
  - 1.8.5. Interface
- 1.9. Events

2. Types, objects and Namespaces **4 Hrs.**

- 2.1. The basic about classes
- 2.2. Value types and reference types
- 2.3. Advanced class programming
- 2.4. Understanding namespaces and assemblies

3. Starting with ASP.NET **5 Hrs.**

- 3.1. Setting up ASP.NET and IIS
- 3.2. Installing ASP.NET
- 3.3. Migrating from ASP
- 3.4. ASP.NET applications
- 3.5. code behind
- 3.6. Global. sax application file
- 3.7. ASP.NET Configuration

4. Web form fundamentals and web controls **7 Hrs.**

- 4.1. A simple page applet
- 4.2. Improving currency converter
- 4.3. A deeper look at HTML control classes
- 4.4. The page class
- 4.5. Setting up web controls
- 4.6. Web control classes
- 4.7. AutoPostBack and web control events

5. Validation and state management **10 Hrs.**

- 5.1. Calendar control
- 5.2. AdRotator
- 5.3. Validation
- 5.4. Understanding regular expressions
- 5.5. Validated customer form
- 5.6. Other rich controls
- 5.7. A problem of state
- 5.8. View state

5.9. Transferring information
5.10. Custom cookies
5.11. Session state and its configuration
5.12. Application stat

6. Tracing, Logging and Error handling **6 Hrs.**

6.1. Common errors
6.2. The .NET exception object
6.3. Handling Exceptions
6.4. Throwing your own exceptions
6.5. Logging Exceptions
6.6. Error pages
6.7. Page tracing

7. Working with Data **8 Hrs.**

7.1. Overview of ADO.NET
    7.1.1. Characteristics of ADO.NET
    7.1.2. The ADO.NET object model
7.2. Ado.NET Data Access
    7.2.1. SQL – Select, update, insert statements
    7.2.2. Creating connection
    7.2.3. Using command with DataReader
    7.2.4. Updating Data
    7.2.5. Accessing Disconnected data
    7.2.6. Selecting multiple tables
    7.2.7. Modifying and Updating disconnected data
7.3. DataBinding
7.4. DataList, DataGrid and Repeater
7.5. Using XML

Reference books -

1. Beginning C#.NET (2nd Edition) by Karli Watson (WROX Publication)

2. The Complete Reference ASP.NET by Matthew McDonald (TMH Publication)

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S6.7
Linux Operating System (80 Marks)

1. Introduction to Fedora **6 Hrs.**

- Features of Fedora
- Hardware Requirements
- Fedora Installation

2. First Steps with Fedora **7 Hrs.**

- Working with the Linux File System
- Logging In to and Working with Linux
- Changing User Information
- Reading Documentation
- Using the Shell
- Using the Text Editors
- Working with Permissions

3. Linux Commands and Utilities **8 Hrs.**

AddUser, alias, at, banner, batch, bind, cat, cd, chmod, chown, chroot, cp, cpio, dc, dd, df, dir, du, dump, ex, fax, fc, find, finger, grep, zip, unzip, gzip, halt, hostname, isconfig, kill, locate, login, logout, look, lpc, lpd, lpr, lprm, ls, mail, man, mcopy, mdel, mdir, mformat, mkdir, mlevel, more, mount, mt, mv, netcft, netstat, passwd, ping, ps, pwd, quota, quotaoff, rm , rmdir, set, shutdown, sort, stat, su, tar, tree, umount, unzip, vdir, vi, view, wc, who, whoami, xload, xset, zip

4. System Administration **7 Hrs.**

- Performing system maintenance
- Communication commands - write, wall, talk, mesg, prelogin message, managing software with rpm - installing, uninstalling, upgrading, managing users and groups with Linux conf and control panel - adding users , changing user, passwords and removing users

5. Backup and Restore **6Hrs.**

- Backup strategies and operations
- Restoring files

6. Network Connectivity **8 Hrs.**

- Using Network Configuration Tools;
- Dynamic Host Configuration Protocol;
- Using the Network File System;
- Putting Samba to Work;
- Introduction to DNS and Apache Web Server

Reference Books -

1. Red Hat Linux and Fedora Unleashed – By Bill Ball and Hoyt Duff

2. Linux - The Complete Reference

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S6.8
Clients Site Scripting through JavaScript (80 Marks)

1. Introduction to JavaScript's **3 Hrs.**

1.1. First look at java scripts
1.2. Adding JavaScript's to XHTML Documents
1.3. History & use of java scripts.

2. Data Types, Variables, Operators & Statements **6 Hrs.**

2.1. Key Concepts
2.2. JavaScript's Primitives Types
2.3. Composites Types
2.4. Type Conversion
2.5. Variables
2.6. Statements Basics
2.7. Operators.
2.8. Core JavaScript's Statements

3. Functions **3 Hrs.**

3.1. Function Basics
3.2. Global & Local Variables
3.3. Functions & Objects
3.4. Recursive Functions
3.5. Using Functions

4. Objects **4 Hrs.**

4.1. Objects in JavaScript
4.2. Objects Fundamentals
4.3. Generic & User defined Objects
4.4. Object- Oriented JavaScript's

5. Array, Date, Math's & Type Related Objects **5 Hrs.**

5.1. Array
5.2. Boolean
5.3. Date
5.4. Global
5.5. Math
5.6. Number String
5.7. Objects Types & Primitives Types

6. Regular Expression **6 Hrs.**

6.1. The Need for regular expression
6.2. The Concepts of Regular Expression
6.3. DOM2 Event Model
6.4. Events Model Issues

7. Form Handling **6 Hrs.**

7.1. The need for JavaScript form checking
7.2. Form Basics
7.3. Form Fields
7.4. Form Validation
7.5. Form Usability & JavaScript

8. Dynamic Effects, Rollovers, Positioning & Animations **6 Hrs.**

8.1. Images
8.2. Rollover Buttons
8.3. Traditional Browser-Specific DHTML.
8.4. Standards –Based DHTML
8.5. Applied DHTML

9. Navigations & Site Visit Improvements **5 Hrs.**

9.1. Implementation Issues
9.2. Pull-Down Menus
9.3. DHTML –Menus

References Books –

1. The Complete Reference – JavaScript - Thomas Powell, Fritz Schneider
2. Pure JavaScript's By Jason Gilliam, Charlton Ting, R. Allen Wyk
3. JavaScript Interactive Course By Arman Danesh

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S6.9 (Elective)
Artificial Neural Network (80 Marks)

1. Introduction to Neural Networks **10 Hrs.**

- Biological Neuron and their Artificial Neuron
- McCulloch-Pits Neuron Model
- Perceptron Classification
- Linearly Seperatibility, NOR Problem
- Overview of Neural Network Architecture
- Learning Rules
    - Supervised Learning
    - Unsupervised Learning
    - Perceptron Learning
    - Reinforcement Learning
    - Delta Learning Rule

2. Multilayer Feed forward **7 Hrs.**

- Generalized Delta Learning
- Back propagations training algorithm and derivation of weight
- Variant in Back propagations
- Radial Basis Function (RBF)
- Application of BP and RBF N/W

3. Recurrent Network and Unsupervised Learning **5 Hrs.**

- Hopfield Network
- Counter propagation networks
- Boltzmann Machine

4. Fuzzy System and Neuro Fuzzy System **5 Hrs.**

- Fuzzy neurons
- Fuzzy Neural Network
- Fuzzy associative memory

5. Application of Fuzzy Sets and Neural Network **5 Hrs.**

- Application in Pattern Recognition
- Character, Face, Finger, Palm, Iris Recognitions
- Application in Expert System

Reference Books –

1. Fuzzy Sets and Fuzzy Logic Theory and Application - George J. Klir, Bo Yuan
2. Fuzzy Sets Uncertainty and Information - George J. Klir, Tina A. Floger
3. Introduction to the Theory of Neural Competition - John hertz, Krogh and Richard Addison Wesley
4. Introduction to Artificial Neural Network - Jack M. Zurada
5. Neural Network and Fuzzy System - A Dynamic System - Koska PHI Edition

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S6.9 (Elective)
Data Mining (80 Marks)

1. Introduction **4 Hrs.**

- 1.1. Basic Data Mining Tasks
- 1.2. Data Mining Versus Knowledge Discovery in Databases
- 1.3. Data Mining Issues
- 1.4. Data Mining Metrics

2. Related Concepts and Data Mining Techniques **6 Hrs.**

- 2.1. Database /OLTP Systems
- 2.2. Fuzzy sets & Fuzzy Logic
- 2.3. Information Retrieval
- 2.4. Data Ware housing
- 2.5. A Statistical Perspective on Data Mining

3. Classification **7 Hrs.**

- 3.1. Introduction
- 3.2. Statistical-Based Algorithms
- 3.3. Distance –Based Algorithms

4. Clustering **8Hrs.**

- 4.1. Introduction
- 4.2. Similarity and Distance Measures
- 4.3. Outliers
- 4.4. Hierarchical Algorithms
- 4.5. Partition Algorithms
  - 4.5.1. Minimum Spanning Tree
  - 4.5.2. Squared Error Clustering Algorithm

5.Web mining **8 Hrs.**

- 5.1. Introduction
- 5.2. Web Content Mining
- 5.3. Web Structure Mining
- 5.4. Web Usage Mining

6.Data mining Applications **6Hrs.**

- 6.1. Data mining for biomedical and DNA Data Analysis
- 6.2. Data mining for Financial Data Analysis
- 6.3. Data mining for Retail Industry

Reference Books –

1. Data Mining Introductory and Advanced Topics - " Margaret H. Dunham and S. Sridhar (Pearson Education) ISBN 81-7758-785-4

2. Data Mining Concepts and Techniques - J. Han and Micheline Kamber Morgan Kaufmann Publisher an Imprint of Elsevier

Syllabus of B. Sc. (Software Engineering) – Third Year
B. Sc. (SE) S6.9 (Elective)
Enterprise Resource Planning (80 Marks)

1. Introduction to ERP **4 Hrs.**
- 1.1 Evolution of ERP
- 1.2 What is ERP?
- 1.3 Advantages of ERP

2. Enterprise – An Overview **3 Hrs.**
- 2.1 Integrated Management Information
- 2.2 Business Modelling
- 2.3 Integrated Data Model

3. ERP and Related Technologies **6 Hrs.**
- 3.1 BPR
- 3.2 MIS
- 3.3 DSS
- 3.4 EIS
- 3.5 Data Warehousing
- 3.6 Data Mining
- 3.7 OLAP
- 3.8 Supply Chain Management

4. ERP – A Manufacturing Perspective – I **7 Hrs.**
- 4.1 ERP
- 4.2 CAD / CAM
- 4.3 MRP and BOM
- 4.4 Close loop MRP
- 4.5 Manufacturing Resource Planning and Distribution Requirements Planning
- 4.6 JIT and Kanban

5. ERP – A Manufacturing Perspective – II **6 Hrs.**
- 5.1 Data Management
- 5.2 Benefits of PDM
- 5.3 MTO and MTS
- 5.4 ATO
- 5.5 ETO
- 5.6 CTO

6. ERP Modules **4 Hrs.**
- 6.1 Finance
- 6.2 Plant Maintenance
- 6.3 Quality Management
- 6.4 Materials Management

7. ERP Market **5 Hrs.**
- 7.1 Benefits of ERP
- 7.2 SAP AG
- 7.3 Oracle Corporation
- 7.4 QAD

Reference Book - 1. Enterprise Resource Planning By Alexis Leon (TATA McGraw Hill)

Syllabus of B.Sc. (Software Engineering) – Third Year
B.Sc. (SE) S6.10
Project Work (100 Marks)

(Total Lectures – 50)

Guidelines for Project Work –

- Student can opt any programming language / software, FoxPro, C, C++, Oracle, VB, Java etc package for project work
- An individual or group of maximum 3 (Three) Students can work on single project
- Project should strictly developed in lab and student should get it checked from guide time to time
- Student should get the Synopsis of project approved from guide well in advance
- The Project Work should covers
  - Cover page
  - Certificate
  - Declaration
  - Acknowledgement
  - Index
  - Introduction of project
  - Data flow diagram
  - Source code
  - Result / output
  - Limitations
  - Conclusion
  - Bibliography
- Student should submit one copy of project to the college
- Four Project work, There should be one external Examiner from the University & one internal Examiner from College