SCHEME OF STUDIES & EXAMINATIONS
B.Tech. 3rd YEAR (SEMESTER –VI) COMPUTER SCIENCE AND ENGINEERING
Credit Based Scheme w.e.f. 2015-16

Sr. No.	Course NO.	Course Title	Teaching Schedule			Marks of class work	Examination Marks		Total	Credit	Duration of Exam
			L	T	P		Theory	Practical			
1.	HUM302 B	REPORT WRITING SKILLS (Common to all branches)	1	-	-	25	50	-	75	1	2
2.	IT 302B	WEB TECHNOLOGIES (Common with IT)	3	1	-	25	75	-	100	4	3
3.	CSE 304B	COMPILER DESIGN	3	1	-	25	75	-	100	4	3
4.	CSE 306B	ADVANCED JAVA PROGRAMMING	3	1	-	25	75	-	100	4	3
5.	CSE 308B	ARTIFICIAL INTELLIGENCE	3	1	-	25	75	-	100	4	3
6.	CSE 310B	SOFTWARE ENGINEERING	3	1	-	25	75	-	100	4	3
7.	CSE 312B	PROGRAMMING LANGUAGES	3	1	-	25	75	-	100	4	3
8.	HUM304 B	ORAL PRESENTATION SKILLS	-	-	2	20	-	30	50	1	2
9.	IT 322B	WEB TECHNOLOGIES LAB (Common with IT)	-	-	2	20	-	30	50	1	3
10.	CSE 324B	COMPILER DESIGN LAB	-	-	2	20	-	30	50	1	3
11.	CSE 326B	ADVANCED JAVA PROGRAMMING LAB	-	-	2	20	-	30	50	1	3
12.	CSE 328B	ARTIFICIAL INTELLIGENCE LAB	-	-	2	20	-	30	50	1	3
13.	GPCSE 302B	GENERAL PROFICIENCY AND ETHICS	1	-	-	-	-	75	75	2	3
Total			20	6	10	275	500	225	1000	32	

Note:

1. Every student has to participate in the sports activities. Minimum one hour is fixed for sports activities either in the morning or evening. Weightage of sports is given in General Proficiency and Ethics Syllabus.
2. The students will be allowed to use non-programmable scientific calculator. However, sharing/exchange of calculator is prohibited in the examination.
3. Electronics gadgets including Cellular phones are not allowed in the examination.
4. All the branches are to be divided in to Group-A and Group-B as per the suitability of the Institute/College so that there is equitable distribution of teaching load in odd and even semesters.

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Report Writing Skills (Theory) **Subject Code: HUM-302B**

Detailed Contents

Unit No. 1 Report Writing

Topic No.1 : Reports: meaning
Topic No.2 : Their importance and types
Topic No.3 : Structure of reports
Topic No.4 : Formats of reports
Topic No.5 : Use of illustrations

Unit No. 2 Writing of Business and Technical Reports

Topic No.6 : Preliminary steps and procedure of writing report
Topic No.7 : Writing various types of reports on technical
Topic No.8 : Business related topics

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
1	-	-	1	25	50	2 hours	75

REFERENCE BOOKS:

1. Borowick, Jerome. N. Technical Communication and its Applications. New Delhi: PHI, 2000
2. Guffey, Mary Ellen. Business Communication: Process & Product. USA: South western College Publishing, 2000.
3. Kumar, Sanjay and Pushp Lata. Communication Skills. Delhi: OUP, 2011

SCHEME OF END SEMESTER EXAMINATION (MAJOR TEST) AND INSTRUCTIONS FOR THE EXAMINER

1. The duration of the exam will be 2 hours.
2. The Question Paper for this theory course shall have three questions in all covering both the units. All will be compulsory with internal choice.
3. Question no. 1 will be of 10 marks. The question may have two/three parts with enough internal choice, covering various components of both the Units.
4. Question no 2 with internal choice will be of 10 marks covering contents of the Unit I. It will be theoretical in nature.
5. Question no 3 will have two parts of 15 marks each. The student will be asked to write reports on business and technical subject/ issue covering contents of Unit II. The emphasis would be on testing the actual report writing on a given business and technical situation/ subject in letter format.

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Web Technologies (Theory) **Subject Code: IT-302B**

Detailed Contents

Unit No. 1 Introduction to the Internet

Topic No.1 : The world wide web: The idea of hypertext and hyper media
Topic No.2 : MIME types, Plugins and helper applications
Topic No.3 : The standards-HTML, XML, XHTML and the W3C
Topic No.4 : Hypertext markup language: The anatomy of an HTML document
Topic No.5 : Absolute and relative links
Topic No.6: Ordered and unordered lists
Topic No.7: Embedding images and controlling appearance
Topic No.8: Table creation and use & frames
Topic No.9: Descriptive markup: Meta tags for common tasks, semantic tags
Topic No.10: The doubling code and RDF

Unit No. 2 Separating Style from Structure with Style Sheets

Topic No.11: Internal style specifications within HTML
Topic No.12: External linked style specification using CSS
Topic No.13: Page and site design considerations
Topic No.14: Client side programming: Introduction to the JavaScript syntax
Topic No.15: The JavaScript object model
Topic No.16: Forms and Event handling, Output in JavaScript
Topic No.17: Hidden fields and images and cookies

Unit No. 3 Server Side Programming

Topic No.18: Introduction to Server Side Technologies CGI/ASP/JSP
Topic No.19: Programming languages for server Side Scripting
Topic No.20: Configuring the server to support CG
Topic No.21: Input/ output operations on the WWW
Topic No.22: Forms processing, (using PERL/VBSCRIPT/JavaSCIPT)

Unit No. 4 Other Dynamic Content Technologies

Topic No.23: Introduction to ASP & JSP
Topic No.24: Delivering multimedia over web pages, VRML
Topic No.25: The Java phenomenon-applets and servelets
Topic No.26: Introduction to Microsoft .NET Technology and its comparison with the competing Technologies.

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
3	1	-	4	25	75	3 hours	100

TEXT BOOKS:

1. Beginning XHTML by Frank Boumpery, Cassandra Greer, Dave Raggett, Jenny Raggett, Sebastian Schnitzenbaumer& ted Wugofski, 2000, WROX press (Indian Shroff Publ. SPD) 1st edition
2. Web Technologies By Achyut S Godbole ,AtulKahate, 2003, T.M.H

REFERENCE BOOKS:

1. HTML &XHTML:The Definitive Guide by Chuck Musciano, Bill Kennedy, 2000, 4th Edi.
2. XHTML Black Book by Steven Holzner, 2000
3. CGI Programming on the World Wide Web. O'Reilly Associates.

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Compiler Design (Theory) **Subject Code: CSE-304B**

Detailed Contents

Unit No. 1 Introduction

- Topic No.1 : Compilers and translators and their significance
- Topic No.2 : Structure of compiler: its different phases
- Topic No.3 : Compiler construction tools
- Topic No.4 : Plugins and helper applications
- Topic No.5 : Lexical Analysis: Role of lexical analyzer
- Topic No.6 : Design of lexical analyzer
- Topic No.7 : Regular expressions
- Topic No.8 : Specification and recognition of tokens
- Topic No.9: Input buffering and finite automata
- Topic No.10: Conversion from regular expression to finite automata, and vice versa
- Topic No.11: Minimizing the number of states of DFA
- Topic No.12: Implementation of lexical analyzer

Unit No. 2 Syntactic Techniques & Parsing

- Topic No.13: Context free Grammars
- Topic No.14: Derivations & parse trees
- Topic No.15: Capabilities of CFGs & Role of parsers
- Topic No.16: Shift-Reduce Parsing
- Topic No.17: Operator precedence parsing
- Topic No.18: Top down parsing
- Topic No.19: Predictive parsing
- Topic No.20: LR parsers
- Topic No.21: LR(0) items SLR
- Topic No.22: LALR and Canonical LR parser

Unit No. 3 Syntax Directed Translation , Symbol Table & Error Handling

- Topic No.23: Syntax directed definition, scheme & Construction of syntax trees
- Topic No.24: Intermediate Code
- Topic No.25: Parse trees & Syntax trees
- Topic No.26: Three address code
- Topic No.27: Quadruples and triples
- Topic No.28: Translation of Boolean Expressions
- Topic No.29: Symbol tables, its contents and data structure for symbol tables
- Topic No.30: Trees, arrays, linked lists, hash tables
- Topic No.31: Errors(lexical phase error, syntactic phase error, semantic error).

Unit No. 4 Code Optimization & Code Generation

- Topic No.32: Sources of code optimization
- Topic No.33: Loop optimization (Denominators, Reducible flow graphs, depth first search loop invariant computation Induction variable elimination)
- Topic No.34: Directed acyclic representation of basic blocks
- Topic No.35: Code generation
- Topic No.36: Forms of objects code
- Topic No.37: Machine dependent code
- Topic No.38: Register allocation for temporary and user defined variables
- Topic No.39: Problems in code generation
- Topic No.40: Peephole optimization

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
3	1	-	4	25	75	3 hours	100

TEXT BOOKS:

1. Compilers Principle, Techniques & Tools -Alfread V. AHO, Ravi Sethi& J.D. Ullman; -1998Addison Wesley.

REFERENCE BOOKS:

1. Theory and practice of compiler writing, Tremblay & Sorenson, 1985, Mc. Graw Hill.
2. System Software by Dhamdhare, 1986, MGH.
3. Principles of Compiler Design, Alfred V Aho , Jeffery D. Ullman , Narosa Publication

Note:

1. In the semester examination, the examiner will set two questions from each unit (total 08 questions in all), covering the entire syllabus. The students will be required to attempt only 5 questions selecting at least one question from each unit.

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Advanced Java Programming (Theory) **Subject Code: CSE-306B**

Detailed Contents

Unit No. 1 Introduction

Topic No.1 : Concepts of Classes and Objects
Topic No.2 : Constructors
Topic No.3 : Inheritance
Topic No.4 : Function Overloading
Topic No.5 : Polymorphism
Topic No.6 : Packages and Interfaces
Topic No.7 : Exception handling
Topic No.8 : File streams and their manipulation
Topic No.9 : AWT & Applet Programming
Topic No.10: Design of User Interfaces: Swing, JApplet
Topic No.11: Icons and Labels, Text Fields, Buttons, Check Box, Radio Buttons
Topic No.12: The Container, Panel
Topic No.13: Windows and Frame Classes
Topic No.14: Combo Box, Trees, Tabbed Panes, Scroll Panes, Tables
Topic No.15: Custom Rendering of Jlist Cells

Unit No. 2 JDBC

Topic No.16: JDBC Fundamentals
Topic No.17: Establishing Connectivity and working with connection interface
Topic No.18: Creating and Executing SQL statements
Topic No.19: Working with Result Set Object & Result Set Meta Data
Topic No.20: Java Beans: Java Bean, Starting Bean Development Kit
Topic No.21: Use of JAR files and the use of Java Beans API

Unit No. 3 Servlets

Topic No.22: Introduction and Life cycle of Servlets, Creating, Compiling and running servlet
Topic No.23: Reading the servlet Parameters, Initialization parameter
Topic No.24: Packages-javax.servletPackage
Topic No.25: Handling HTTP Request and Response (GET / POST Request)
Topic No.26: Cookies and Session Tracking

Unit No. 4 JSP

Topic No.27: JSP Architecture, Access Mode, Syntax Basic (Directions, Declarations, Expression, Scriplets and Comments)
Topic No.28: SP Implicit Object, Object Scope
Topic No.29: Synchronization Issue & Session Management

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
4	1	-	4	25	75	3 hours	100

TEXT BOOKS:

1. Gary Cornell and Horstmann Cay S., Core Java, Vol I and VolII, Sun Microsystems Press.
2. Herbert Schildt, Java: The Complete Reference, McGraw-Hill.

REFERENCE BOOKS:

1. Philip Hanna, JSP: The Complete Reference, McGraw-Hill.
2. Deital and Deital, Java How to Program, Prentice Hall (2007).

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Artificial Intelligence (Theory) **Subject Code: CSE-308B**

Detailed Contents

Unit No. 1 Basic of AI

Topic No.1 : Foundation and history of AI
Topic No.2 : AI problems and techniques –AI programming languages
Topic No.3 : Introduction to LISP and PROLOG-problem spaces and searches
Topic No.4 : Blind search strategies
Topic No.5 : Breadth first-Depth first-heuristic search techniques Hill climbing: best first-A * algorithm AO* algorithm-game tree
Topic No.6 : Min max algorithms
Topic No.7 : Game playing-alpha beta pruning.

Unit No. 2 Knowledge Representation Issues

Topic No.8 : Predicate logic-logic programming
Topic No.9 : Semantic nets-frames and inheritance
Topic No.10: Constraint propagation
Topic No.11: Representing knowledge using rule
Topic No.12: Rules based deduction systems

Unit No. 3 Reasoning Under Uncertainty

Topic No.13: Review of probability
Topic No.14: Baye's probabilistic interferences and Dempster shafer theory
Topic No.15: Heuristic methods
Topic No.16: Symbolic reasoning under uncertainty
Topic No.17: Statistical reasoning
Topic No.18: Fuzzy reasoning
Topic No.19: Temporal reasoning
Topic No.20: Non monotonic reasoning

Unit No. 4 Principles of Natural Language Processing

Topic No.21: Rule based systems architecture
Topic No.22: Expert systems
Topic No.23: knowledge acquisition concepts
Topic No.24: AI application to robotics, and current trends in intelligent systems

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
3	1	-	4	25	75	3 hours	100

TEXT BOOKS:

3. Artificial Intelligence: A Modern Approach, Russell & Norvig. 1995, Prentice Hall.

REFERENCE BOOKS:

1. Artificial Intelligence, Elain Rich and Kevin Knight, 1991, TMH
2. .Artificial Intelligence-A modern approach, Staurt Russel and peter norvig, 1998, PHI.
3. Artificial intelligence, Patrick Henry Winston:, 1992, Addition Wesley 3rdEd.

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Software Engineering (Theory) **Subject Code: CSE-310B**

Detailed Contents

Unit No. 1 Introduction

Topic No.1 : Introduction to Software Engineering
Topic No.2 : Importance of Software, The Software Evolution
Topic No.4 : Software Characteristics & applications
Topic No.6 : Software Crisis: Problem and Causes
Topic No.7 : Software Development Life Cycle: Waterfall model
Topic No.8 : Incremental and Evolutionary process models
Topic No.9 : Personal Software process (PSP) and Team Software process (TSP)
Topic No.10: Overview of agile process and aspect oriented programming
Topic No.11: Software Requirement Specification: Problem Analysis
Topic No.12: Requirement elicitation and Validation & modeling
Topic No.14: Information and analysis classes
Topic No.15: Flow and behavioral modeling
Topic No.16: Documenting Software Requirement Specification (SRS)

Unit No. 2 System Design

Topic No.17: Design Concepts & models for architecture
Topic No.18: Data and user interfaces
Topic No.19: Problem Partitioning
Topic No.20: Abstraction, Cohesiveness, Coupling
Topic No.21: Top Down and Bottom Up design approaches
Topic No.22: Functional Versus Object Oriented Approach
Topic No.23: Design Specification, 4GL
Topic No.24: Coding:TOP-DOWN and BOTTOM-UP structure programming
Topic No.25: Information Hiding
Topic No.26: Programming Style and Internal Documentation, Verification

Unit No. 3 Software Testing

Topic No.27: Levels of Testing, Functional & structural Testing
Topic No.28: Test plan, Test case specification
Topic No.29: Software testing strategies
Topic No.30: Verification and validation, Unit Testing, Integration testing
Topic No.31: Top down and bottom up integration testing
Topic No.32: Alpha & beta testing
Topic No.33: White box and black box testing techniques
Topic No.34: System testing and debugging
Topic No.35: Software Quality Assurance: Software Configuration Management
Topic No.36: Overview of Software Quality Control and Quality Assurance
Topic No.37: ISO 9000 Certification for Software Industry
Topic No.38: SEI Capability Maturity Model (CMM) and Comparison between ISO & SEI CMM

Unit No. 4 Technical Metrics for Software

Topic No.39: A Framework for Technical Software Metrics
Topic No.40: Metrics for the Analysis Model , Design Model, Source Code, Testing, Maintenance
Topic No.41: CASE (Computer Aided Software Engineering): CASE and its Scope
Topic No.42: CASE support in Software Life Cycle, Documentation Support
Topic No.43: Architecture of CASE Environment
Topic No.44: Exposure to CASE tools like Rational Software suit
Topic No.45: Turbo Analyst

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
3	1	-	4	25	75	3 hours	100

TEXT BOOKS:

1. Roger S. Pressman, Software Engineering,APractitioner's Approach,McGrawHillInternational Edition(2009) 7th edition.
2. IanSommerville, Software Engineering, Addison-Wesley Publishing Company, (2006) 8th ed.
3. KK Aggarwal, Yogesh Singh, Software Engineering,(2012), 3rdEdition, New Age International.

REFERENCE BOOKS:

1. James F. Peter, Software Engineering -An Engineering Approach, John Wiley (2004).
2. Pankaj Jalote,Anintegrated Approach to Software Engineering,Narosa(2005).

Note:

In the semester examination, the examiner will set two questions from each unit (total 08 questions in all), covering the entire syllabus. The students will be required to attempt only 5 questions selecting at least one question from each unit.

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Programming Languages (Theory) **Subject Code: CSE-312B**

Detailed Contents

Unit No. 1 Introduction

- Topic No.1 : Syntactic and semantic rules of a Programming language
- Topic No.2 : Characteristics of a good programming language
- Topic No.3 : Programming language translators compiler & interpreters
- Topic No.4 : Virtual Computers & Binding times
- Topic No.5 : Introduction to procedural
- Topic No.6 : Non-procedural , Structured
- Topic No.7 : Functional and object oriented programming language
- Topic No.8 : Comparison of C & C++ programming languages

Unit No. 2 Elementary & Structured Data Types

- Topic No.9 : Elementary data types –data objects
- Topic No.10: Variable & constants, Data types
- Topic No.11: Specification & implementation of elementary data types
- Topic No.12: Declarations, Type checking & type conversions
- Topic No.13: Assignment & initialization
- Topic No.14: Enumerations, Booleans & characters
- Topic No.15: Structured data types& data Objects
- Topic No.16: Specification & implementation of structured data types
- Topic No.17: Declaration & type checking of data structure
- Topic No.18: Vector & arrays
- Topic No.19: Records Character strings
- Topic No.20: Variable size data structures & Union
- Topic No.21: Pointer & programmer defined data objects
- Topic No.22: Sets, files

Unit No. 3 Sequence Control & Data Control

- Topic No.23: Implicit & explicit sequence control
- Topic No.24: Sequence control within expressions and statement
- Topic No.25: Subprogram sequence control: simple call return recursive subprograms
- Topic No.26: Exception & exception handlers
- Topic No.27: Co routines, Sequence control
- Topic No.28: Data Control:-Names & referencing environment
- Topic No.29: Static & dynamic scope, Block structure
- Topic No.30: Local data & local referencing environment
- Topic No.31: Shared data (dynamic & static scope)
- Topic No.32: Parameters & parameter transmission schemes

Unit No. 4 Storage Management & other Features

- Topic No.33: Major run time elements requiring storage
- Topic No.34: Programmer and system controlled storage management & phases
- Topic No.35: Static and stack based storage management
- Topic No.36: Heap storage management
- Topic No.37: Variable & fixed size elements
- Topic No.38: Evolution of data type concept
- Topic No.39: Abstraction, Encapsulation and information hiding
- Topic No.40: Subprograms
- Topic No.41: Type definitions, Abstract datatypes

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
3	1	-	4	25	75	3 hours	100

TEXT BOOKS:

1. Programming languages Design & implementation by T.W. .Pratt, 1996, Prentice Hall Pub.
2. Programming Languages –Principles and Paradigms by Allen Tucker & Robert Noonan, 2002, TMH.

REFERENCE BOOKS:

1. Fundamentals of Programming languages by Ellis Horowitz, 1984, Galgotia publications (Springer Verlag),
2. Programming languages concepts by C. Ghezzi, 1989, Wiley Publications.
3. Programming Languages –Principles and Pradigms, Allen Tucker, Robert Noonan 2002, T.M.H.

Note:

In the semester examination, the examiner will set two questions from each unit (total 08 questions in all), covering the entire syllabus. The students will be required to attempt only 5 questions selecting at least one question from each unit.

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Web Technologies Lab **Subject Code: IT-322B**

Detailed Contents

1 : A Simple HTML home page provide links to move to other pages like hobbies, educational info, personal info etc.
2 : A HTML program to illustrate the use of frame and frameset tags of HTML.
3 : A HTML Program which use a HTML controls to create a student information form to collect student's information like name, address, phone, email, sex, birth date, hobbies etc. Download
4 : Write a program to create menu using HTML and CSS
5 : Create an external style sheet and link to a HTML tag
6 : A HTML Program which demonstrates loops like for loop, do while, while in java script.
7 : A HTML Program which demonstrates the use of functions in java script.
8 : Write a program in java script validation
9 : Write down simple JavaScript using timeout such that image will be changed after every 1ms at a specified position
10: A HTML Program which demonstrates various events like onclick, ondbclick, onfocus, onblur, onchange, onmouseover, onmouseover, window event, onload, onunload event
11: A HTML Program to create various functions and sub routines to validate the data entered by user in form. Download
12: Create a program to illustrate the concept of associative array in PHP.
13: Create PHP program to implement the concept of Session management
14: Create a PHP program to display student information in webpage. Student's data is stored in My SQL database. Create a PHP program to insert student information from HTML form. Student's data is stored in My SQL database
15:
16: Write an XML example of given tree that demonstrate the creation of user designed tags and display it in a browser. Company->employee->fname, lname, joindate, bdate, age, salary(with at least three elements).
17: Create a simple program in xml using XML style sheet

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
-	-	2	1	20	30	3 hours	50

Note: Teacher may give 5 to 10 more exercises based on course

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Compiler Design Lab **Subject Code: CSE-324B**

Detailed Contents

1 : Practice of LEX/YACC of compiler writing.
2 : Write a program to check whether a string belong to the grammar or not.
3 : Write a program to generate a parse tree.
4 : Write a program to find leading terminals.
5 : Write a program to find trailing terminals.
6 : Write a program to compute FIRST of non-terminal.
7 : Write a program to compute FOLLOW of non-terminal.
8 : Write a program to check whether a grammar is left Recursion and remove left Recursion.
9 : Write a program to remove left factoring.
10 : Write a program to check whether a grammar is operator precedent.
11 : To show all the operations of a stack.
12 : To show various operations i.e. red, write and modify in a text file.

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
-	-	2	1	20	30	3 hours	50

Note: Teacher may give 5 to 10 more exercises based on course

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Advanced Java Programming Lab **Subject Code: CSE-326B**

Detailed Contents

1 : Write a program in Java for illustrating overloading, over riding and various forms of inheritance.
2 : Write programs to create packages and multiple threads in Java.
3 : Write programs in Java for event handling Mouse and Keyboard events.
4 : Using Layout Manger create different applications.
5 : Write programs in Java to create and manipulate Text Area, Canvas, Scroll Bars, Frames, and menus using swing/AWT.
6 : Using Java create Applets.
7 : Using Java language for Client Server Interaction with stream socket connections.
8 : Write a program in Java to read data from disk file.

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
-	-	2	1	20	30	3 hours	50

Note: Teacher may give 5 to 10 more exercises based on course

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: Artificial Intelligence Lab **Subject Code: CSE-328B**

Detailed Contents

1 : Study of PROLOG.
2 : Write a program to solve 8 queens problem.
3 : Solve any problem using depth first search.
4 : Solve any problem using best first search.
5 : Solve 8-puzzle problem using best first search
6 : Solve Robot (traversal) problem using means End Analysis.
8 : Solve traveling salesman problem
9 : Write a program to implement Min Max problem
10: Write a truth maintenance system to carry out Differentiation.
11: Write a truth maintenance system to carry out Integration.
12: Write a truth maintenance system to carry out Simplification.

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
-	-	2	1	20	30	3 hours	50

Note: Teacher may give 5 to 10 more exercises based on course

SYLLABUS: B Tech (CSE)

Department: Computer Science & Engineering – 6th Semester

Subject: GENERAL PROFICIENCY AND ETHICS **Subject Code:** GPCSE 302B

Detailed Contents

The purpose of this course is to inculcate a sense of professionalism in a student along with personality development in terms of quality such as receiving, responding, temperament, attitude and outlook. The student efforts will be evaluated on the basis of his/ her performance /achievements in different walks of life.

A Faculty Counselor will be attached to a group of students which will remain associated with him /her during the entire period of the degree program in the University. Each faculty member will serve as a faculty counselor. They will act like a local guardian for the students associated with him / her and will help them in terms of career guidance, personal difficulties.

A. The student will present a written report before the committee with following in view:

The student will present before the committee his/her achievements during the current academic session in the form of a written report highlighting followings:

I. Academic Performance --------
II. Extra Curricular Activities / Community Service, Hostel Activities **(8 Marks)**
III Technical Activities / Industrial, Educational tour **(8 Marks)**
IV Sports/games **(14 Marks)**
V Moral values & Ethics **(15 Marks)**

NOTE: Report submitted by the students should be typed on both sides of the paper.

B. A student will support his/her achievement and verbal & communicative skill through presentation before the committee. **(30 Marks)**

C. Moral values & Ethics

Syllabus - A few topics from the below mentioned books

1. R.R.Gaur, R. Sangal and G.P. Bagaria, " Bagaria, " A foundation course in Human Values and Professional Ethics", Pub: Excel Books, New Delhi-110028.
2. M. Govindrajan, S Natrajan & V.S. Senthil Kumar, " Engineering Ethics (including Human Values)" Eastern Economy Edition, Prentics Hall of India Ltd.

A minor test/Quiz will be conducted during the semesterand It will be the duty of the concerned teacher assigned to teach Moral values & Ethics to submit the awards to respective chairman of the department / Director/Principal.

The evaluation of this course will be made by the following Committee.

University Departments:

1 Chairperson of the Department	Chairman
2 Senior Most Faculty Counselor	Member
3 Vice- Chancellor's Nominee	Member

Affiliated Colleges:

1 Director/Principal	Chairman
2 Head of the Department/Sr. Faculty	Member
3 External Examiner to be appointed by the University	Member

Note: Remuneration will be paid to the external examiner only (at par with the other practical examinations).

Study Scheme				Evaluation Scheme			Total Marks
Lectures per week				Internal Assessment	External Assessment (Examination)		
L	T	P	Credits	Max. Marks	Max. Marks	Exam Duration	
1	-	-	1	75	75	3 hours	75