Semester - I				
Course Code: 22BCE1C1	**Core Course - I**	**T/P**	**C**	**H/W**
	PROGRAMMING IN C	**T**	**5**	**5**
Objectives	• To give basic understanding of C Language. • To enable students to develop Program for real world Problems.			
Outcomes	• Students gain knowledge to develop C Programs. • Students were able to apply and implement programs for solving real world problems.			

Semester – I				
Course Code: 22BCE1P1	**Core Practical - I**	**T/P**	**C**	**H/W**
	PROGRAMMING IN C LAB	**P**	**4**	**4**
Objectives	• To Understand the C Language Practically • To know how to solve the real-time problems.			
Group- A	1. Write a C Program to find the sum of digits. 2. Write a C Program to check whether a given number is Armstrong or not. 3. Write a C Program to check whether a given number is Prime or not. 4. Write a C Program to generate the Fibonacci series. 5. Write a C Program to display the given number is Adam number or not. 6. Write a C Program to print reverse of the given number and string. 7. Write a C Program to find minimum and maximum of 'n' numbers using array. 8. Write a C Program to arrange the given number in ascending order. 9. Write a C Program to add and multiply two matrices. 10. Write a C Program to calculate NCR and NPR.			
Group- B	1. Write a C Program to find the grade of a student using else if ladder. 2. Write a C Program to implement the various string handling function. 3. Write a C Program to create an integer file and displaying the even numbers only. 4. Write a C Program to calculate quadratic equation using switch-case. 5. Write a C Program to count number of characters, words and lines in a text file. 6. Write a C Program to generate student mark list using array of structures. 7. Write a C Program to create and process the student mark list using file 8. Write a C Program to create and process pay bill using file 9. Write a C Program to create and process inventory control using file 10. Write a C Program to create and process electricity bill using file			
Note: **One Question from Group A and another one Question from Group B is compulsory for University Examination**				
Outcomes	• Students were able to relate the ways to solve simple programs. • Students were able to understand and trace the execution of Programs using Arrays, Structures and files.			

Semester – II				
Course code: 22BCE2C1	**Core Course -II**	**T/P**	**C**	**H/W**
	OBJECT ORIENTED PROGRAMMING WITH C++	**T**	**5**	**5**
Objectives	• To understand the basic concepts of OOPS • To enable Students develop programs for real-time entities.			
Outcomes	• Students gain knowledge to develop Object Oriented Programs. • Using the OOPS Concepts Students were able to solve real-time problems.			

Semester – II				
Course code: 22BCE2P1	**Core Practical-II**	**T/P**	**C**	**H/W**
	OBJECT ORIENTED PROGRAMMING WITH C++ LAB	**P**	**4**	**4**
Objectives	• To Understand the OOPS Concept Practically. • To know how to solve the real-time problems using OOPS.			
Group- A	1. Printing Prime numbers between two given numbers. 2. Printing 3 digit numbers as a series of words. (Ex. 543 should be printed out as Five Four Three). 3. Finding area of geometric shapes using function overloading. 4. Inline functions for simple arithmetic operations. 5. Demonstrating the use of Pre-defined Manipulators. 6. Demonstrating the use of friend function. 7. Creating student mark list using array of objects, 8. Demonstrating constructor overloading. 9. Overloading the unary – operator. 10. Demonstrating single inheritance. 11. Demonstrating the use of “this” pointer. 12. Designing our own manipulator. 13. Illustrating function templates. 14. Illustrating class templates.			
Group- B	1. Overloading the binary + operator. 2. Demonstrating Multiple inheritance. 3. Demonstrating Multilevel inheritance. 4. Demonstrating Hierarchical inheritance. 5. Demonstrating Virtual functions. 6. Processing mark list using binary file. 7. Count number of objects in a file. 8. Demonstrating the use of Command-line arguments.			
Note: **One Question from Group A and another one Question from Group B is compulsory for University Examination**				
Outcomes	• Students were able to understand the concept of OOPS. • Students were able to understand and trace the execution of Programs using OOPS Concept.			

Semester - III				
Course code: 22BCE3C1	**Core Course -III**	**T/P**	**C**	**H/W**
	Microprocessor and its applications	**T**	**3**	**3**
Objectives	➢ To gain knowledge about the Microprocessor ➢ To understand the basics of 8086 processor ➢ To gain insight about the ARM processor and programming in ARM AssemblyLanguage			
Outcomes	➢ The students gain knowledge about Microprocessor and its applications ➢ The students will be able to understand the working of 8086 processor ➢ The students will gain insight ARM processor design and programming.			

Semester – III				
Course code: 22BCE3C2	**Core Course-IV**	**T/P**	**C**	**H/W**
	DATA STRUCTURES AND COMPUTER ALGORITHMS	**T**	**3**	**3**
Objectives	• To acquire knowledge about various Data Structures and Algorithms. • To find suitable Data Structure and Computer Algorithms for real world problems.			
Outcomes	• Students will be able to apply the Data Structures and Algorithms to solve simple problems. • Students were able to compare various techniques used in Data structures and Algorithms by developing real world applications.			

Semester - III				
Course code: 22BCE3P1	**Core Practical-III**	**T/P**	**C**	**H/W**
	DATA STRUCTURES AND COMPUTER ALGORITHMS LAB (USING C AND C++)	**P**	**3**	**3**
Objectives	• To Understand the Data Structures and Computer Algorithms concept. • To know how to use the Data Structures and Computer Algorithms for real world problems.			
Group- A	**(Programs from Data Structures Using C)** 1. Implementing Stack as an array. 2. Implementing Stack as a linked list. 3. Convert Infix expression to Postfix expression using stack. 4. Convert Infix expression to Prefix expression using Stack. 5. Implementing Queue as an Array. 6. Implement Queue as a linked list. 7. Binary tree traversals. 8. Implement Binary Search Tree.			

Group- B	**(Programs from Computer Algorithms Using C++)** 1. Linear Search 2. Binary Search 3. Bubble Sort 4. Insertion Sort 5. Merge Sort 6. Quick Sort 7. Selection Sort 8. Minimum Spanning Tree

Note:
One Question from Group A and another one Question from Group B is compulsory for University Examination

Outcomes	• Students were able to understand the concept of Data Structures and Computer Algorithms. • Students were able to compare various techniques by executing the programs using Data Structures and Computer Algorithms.

Semester – IV				
Course code: 22BCE4C1	**Core Course -V**	**T/P**	**C**	**H/W**
	JAVA PROGRAMMING	**T**	**4**	**4**
Objectives	• To gain knowledge about basic concepts of Java. • To engage students to build programs using Java methodology.			
Outcomes	• Students will able to understand the Java programming concepts. • Students will able to apply concepts and methods for real-time problems.			

Semester - IV				
Course code: 22BCE4C2	**Core Course-VI**	**T/P**	**C**	**H/W**
	OPERATING SYSTEM	**T**	**4**	**4**
Objectives	• To understand the services provided by and the design of an operating system. • To understand the structure and organization of the file system.			
Outcomes	• Understands the different services provided by Operating System at different level. • They learn real life applications of Operating System in every field.			

Semester - IV				
Course code: 22BCE4P1	**Core Practical-IV**	**T/P**	**C**	**H/W**
	JAVA PROGRAMMING LAB	**P**	**3**	**3**
Objectives	• To Understand the Java Concept Practically. • To write programs for solving real world problems using Java collection framework. •			

Group- A	1. Applet Program to Displaying Digital Clock. (Ex: 09:15:45 AM) 2. Applet Program to Draw our National Flag. 3. Applet Program to Draw Bar Charts with different colors. 4. Applet Program to draw Building with attractive colors. 5. Applet Program to addition and multiplication of two numbers 6. Write applets to draw the following Shapes: 7. **(a).** Cone **(b).** Cylinder **(c).** Square inside a Circle **(d).** Circle inside a Square 8. Write an applet Program to design a simple calculator. 9. Write an Applet Program to animate a ball across the Screen.
Group- B	1. To perform addition and subtraction of complex numbers using class and objects. 2. Program to calculate area of Square and Rectangle using Method Overloading. 3. Program to implement User-Defined Exception (minimum 3 types of exception should be used). 4. Create two threads such that one of the thread generate Fibonacci series and another generate perfect numbers between two given limits. 5. Using command line arguments, test if the given string is palindrome or not. 6. Program to perform Matrix Addition and Multiplication using class. 7. Program to perform the String operations. (Reverse, Copy, Concatenate, Compare) 8. Program to display student mark details using Single Inheritance. 9. Using multilevel inheritance process student marks. 10. Implement multiple inheritance for payroll processing. 11. Program to implement banking transaction using Interface. 12. Program to implement Multiple Thread. 13. Program to implement Package.
Note: **One Question from Group A and another one Question from Group B is compulsory for University Examination**	
Outcomes	• Students were able to solve real world problems using Java collection framework. • Students were able to write and execute programs using various methods and concepts.

Semester - V				
Course code: 22BCE5C1	**Core Course -VII**	**T/P**	**C**	**H/W**
	RELATIONAL DATABASE MANGEMENT SYSTEMS	**T**	**4**	**4**
Objectives	• To impart knowledge about various databases and deep knowledge in RDBMS. • To utilize the wide range of futures available in DBMS package.			
Outcomes	• Students acquire knowledge about RDBMS and ER models. • Students were able to find suitable PL/SQL routines to solve database related problems.			

Semester - V				
Course code: 22BCE5C2	**Core Course -VIII**	**T/P**	**C**	**H/W**
	PYTHON PROGRAMMING	**T**	**4**	**4**
Objectives	• To acquire programming skills and Object Oriented Skills in Python • To develop the skill of designing Graphical user Interfaces and ability to write database applications in Python			
Outcomes	• Students will able to define and demonstrate the use of built-in data structures "lists" and "dictionary". • Students will able to design and implement a program to solve a real world problem and as well as to Design and implement GUI application.			

Semester – V				
Course code 22BCE5C3	**Core Course-IX**	**T/P**	**C**	**H/W**
	SOFTWARE ENGINEERING	**T**	**4**	**4**
Objectives	• To equip students with the knowledge and techniques of professional practices insoftware processes and activities. • To acquire knowledge about developing a project.			
Outcomes	• Students will gain knowledge about analysis and design a project. • Students will able to develop a simple projects and testing reports.			

Semester - V				
Course code: 22BCE5C4	**Core Course-X**	**T/P**	**C**	**H/W**
	COMPUTER GRAPHICS	**T**	**4**	**4**
Objectives	• To understand the concept of Graphics and their application in various areas. • To understand the concept of transformation and viewing techniques in detail.			
Outcomes	• Students will gain knowledge about Computer Graphics and their applications • Students will able to know about the transformation and viewing techniques.			

Semester – V				
Course code 22BCE5P1	**Core Practical-V**	**T/P**	**C**	**H/W**
	Relational Database Management Systems Lab	**P**	**4**	**6**
Objectives	The following concepts must be introduced to the students: **DDL Commands** • Create table, alter table, drop table **DML Commands** • Select, update, delete and insert statements • Condition specification using Boolean and comparison operators (and, or,not,=,<>,>,<,>=,<=) • Arithmetic operators and aggregate functions (Count, Sum, Avg, Min, Max) • Handling Multiple table queries • Arranging using order by **PL/SQL Programming** • Simple PL/SQL programs with Table handling • Concepts of Trigger, Procedures and Cursor			

Group- A	1. Create a student table with the following attributes name, register number, department, marks in 5 subjects and total. (a) Insert few records into student table. (b) Display all the records (c) Calculate the total marks for all the records. (d) Display the information of student name, register number and total only. 2. Create a student table with the following attributes name, registernumber, department, marks in 5 subjects and total. (a) Insert few records into student table. (b) Modify the name of the student as vignesh whose register number is 211278019. (c) Delete the records whose register number is 211278005. (d) Display all the records. 3. Create a table student with name, roll number, gender, age and mobile number. Apply the following integrity rules to the student table (a) The student name must be in capital letter. (b) The roll number must be greater than zero. (c) The age cannot be a null value. (d) The gender must be “Male” or “Female” or “Transgend” (e) The mobile number may contain null values. 4. Create a table student_master with the following attributes name, regno, dept and year of joining with suitable data types. Use Select command to do the following. (a) Display all the column in the student_ master table . (b) Display the student’s name column only.

(c) Eliminate the duplicate entry in student_mastertable.

(d) Select the details of student who is studying computer science department

(e) Sort the attribute name in alphabetical order.

5. Create a table sales_order_details with the s_order_no as primary key and it contains the following fields: product_no, description, qty_ordered, qty_disp, product_rate, profit_percent, sell_price, supplier_name. Use Select command to do the following

(a) Select each row and compute sell_price*.50 and sell_price*1.50 for each row selected.

(b) Select product_no, profit_percent, Sell_price where profit_per is not between 10 and 20 both inclusive.

(c) Select product_no, description, profit_percent, sell_price where profit_percent is not between 20 and 30.

(d) Select the suppliername and product_no where suppliername has 'r' or 'h'as second character.

6. Create an Employee table with the following attributes: employee_number, name, job and manager_id. Set the manager_id as a foreign key for creating self referential structure.

(a) Insert few records

(b) Display all the records

(c) Display the employee details who are working under particular manager_id.

7. Create an Employee table with the following attributes: employee_number, employee_name, department_number, job and salary.

(a) Query to display the employee_name and Salary of all the employees earning more than 20000 INR.

(b) Query to display employee_name and department_number for the particular employee _number.

(c) Query to display employee_name and Salary for all employees whose salary is not in the range of INR 15000 and INR 30000.

8. Create an Employee table with the following attribute employee_number, employee_name, job_type, hire_date, department_number and salary.

(a) Query to display employee_name and department_number of all the employees in department_number 10 and Department number 20 in the alphabetical order by name.

(b) Query to display Name of all the employees where the third letter of their name is =A.

(c) Query to display Name with the 1st letter capitalized and all other letter lowercase

(d) Query to display Name of all employees either have two R's or have two A's in

	their Name. 9. Create an Employee table with the following attributes: employee_number, name, job, hire_date and manager_id. Set the manager_id as a forein key for creating self-referential structure. (a) Query to display name and Hire Date of every Employee who was hired in 2007. (b) Query to display name and calculate the number of months between today and the date each employee was hired. (c) Query to display name and job of all employees who don't have a current Manager.
Group- B	10. Create a table sales_order with s_order_no, client_number, delivery_address, delivery_date and order_status. Define the s_order_no as primary key using column level Constraints. (a) Create another table named as sales_order_copy with the same structure of sales_order table. Define the s_order_no as primary key using table level constraints. (b) Add a new column for storing salesman_number in sales_order using ALTER Command. (c) Modify the size of delivery_address in sales_order table using ALTER command. (d) Display the structure of sales_order table 11. Create an Employee table with the following attribute employee_number, employee_name, job_type, hire_date, department_number, salary and commission. (a) Query to display the Highest, Lowest, Sum and Average Salaries of all the Employees (b) Query to display the employee_number and employee_name for all employees who earn more than the average salary. (c) Query to display the employee_name, salary and commission for all the employees who earn commission. (d) Sort the data in descending order of salary and commission (e) Query to display employee_name, salary and commission for all employees whose commission is greater than their salary increased by 5%. 12. Create a DEPARTMENT table with the attributes of department_number and department_name. Set the department_ number as a primary key. (a) Insert few records (b) Display all the records (c) Create an employee table with the following attribute employee_number, employee_name, job and department_number. Set the employee_number as a primary key and set the department_number as a foreign key. (d) Query to display the employee details who are working in the particular department_number. (e) Query to display employee_number, employee_name and job from the employee table (f) Query to display unique jobs from the employee Table (g) Query to display the employee_name concatenated by a job separated by a comma.

13. Create a DEPARTMENT table with the attributes of department_number and department_name. Set the department number as a primary key.

(a) Create an Employee table with the following attributes: employee_number, name, job_type, department_number and location.

(b) Query to display Unique Listing of all Jobs that are in department_number 20.

(c) Query to display employee name, department_name and department_number for all the employees.

(d) Query to display name, Job, department_number and department_name for all the employees working at the Mumbai location.

14. Create a table client-master with the following fields: client_no, name, address, city, state, pincode, remarks, bal_due with suitable data types.

(a) Create another table supplier_master from client_master.

(b) rename the attribute client_no with supplier_no and the attribute **name** with supplier_name in the supplier_master table

(c) Insert data into client_master

(d) Insert data into supplier_master from client_master.

(e) Delete the row which is having the value chennai in the city attribute of client_master table.

(f) Drop the client_master table

15. Create a table master_book to contain the information of magazine_code, magazine_name and publisher, magazine_type (Weekly/biweekly/monthly) and price. Write a PL/SQL block to perform insert, update and delete operations on the above table

16. Create a table to contain phone_number, user_name, address of the phone user. Write a function to search for an address using phone numbers.

17. Create a table to store the salary details of the employees in a company. Declare the cursor to contain employee_number, employee_name and net_salary. Use cursor to update the employee salaries.

18. Create a table to contain the information about the voters in a particular constituency. Write a proper trigger to update or delete a row in the table.

19. Create a table employee to contain the information of employee_name, employee_number and salary.

(a) Write a procedure to increase 10% of salary to all employees (procedure without argument).

(b) Write a procedure to increase specific percentage for specific department number (procedure with argument).

Note:

One Question from Group A and another one Question from Group B is compulsory for University Examination

Outcomes	• Students were able to work with various queries • Students were able to know about database concepts, triggers, cursor programming etc.

Semester - IV				
Course code 22BCE5P2	**Core Practical-VI**	**T/P**	**C**	**H/W**
	PYTHON PROGRAMMING LAB	**P**	**4**	**6**

Objectives

- Acquire programming skills in core Python.
- Acquire Object-oriented programming skills in Python.
- Develop the skill of designing graphical-user interfaces (GUI) in Python.
- Develop the ability to write database applications in Python.

Group- A

1. Write a Python program that accepts an integer (n) and computes the value of n+nn+nnn.
2. Write a Python program to compute the distance between the points (x1, y1) and (x2, y2).
3. Write a Python program to convert seconds to day, hour, minutes and seconds.
4. Write a Python program to compute the greatest common divisor (GCD) of two positive integers.
5. Write a Python program to convert an integer to binary keep leading zeros.
6. Write a Python program to count the number occurrence of a specific character in a string.
7. Write a Python function to find the maximum and minimum numbers from a sequence of numbers. Do not use built-in functions.
8. Write a Python program to find the number of divisors of a given integer is even or odd.
9. Write a Python program that accept a positive number and subtract from this number the sum of its digits and so on. Continues this operation until the number is positive.
10. Write a Python program to get a string from a given string where all occurrences of its first char have been changed to '$', except the first char itself.
11. Write a Python program to count occurrences of a substring in a string.
12. Write a Python function that takes a list of words and return the longest word and the length of the longest one.
13. Write a Python program to count the number of strings where the string length is 2 or more and the first and last character are same from a given list of strings.
14. Write a Python function to sum all the numbers in a list.
15. Create a dictionary and apply the following methods: Print the dictionary items, access items, use get() , Change values , use len()

	16. Create a tuple and perform the following methods: Add items, len() , check for item in tuple, Access items 17. Write a python program to create two sets and perform the following operations: Union, Intersection, Difference, Asymmetric Difference. 18. Write a Python script to check whether a given key already exists in a dictionary. 19. Write a Python program to check whether an element exists within a tuple.
Group- B	1. Write a Python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument. 2. Write a Python function that checks whether a passed string is palindrome or not. 3. Write a Python class which has two methods get_String and print_String. get_String accept a string from the user and print_String print the string in upper case. 4. Write a Python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle. 5. Write a Python program to count the number of lines in a text file. 6. Write a python program to define a module to find Fibonacci numbers and import the module to another program. 7. Write a script named copyfile.py. This script should prompt the user for the names of two text files. the contents of the first file should be input and written to the second file. 8. Demonstrate a python code to print try, except and finally block statements 9. Write a 2D Graphics program for the following (a) Draw a Star (b) Draw a letter (c) Draw a hexagon with color. 10. Write a python program to animate an object from left to right and right to left. 11. Write a python program for displaying the database records from SQL. 12. Write a python program to demonstrate the use of Java program.
Note: **One Question from Group A and another one Question from Group B is compulsory for University Examination**	
Outcomes	• Students were able to understand the concept of Python programming. • Students were able to execute programs for real time applications.

Semester - VI				
Course code 22BCE6E1	**DSE -I**	**T/P**	**C**	**H/W**
	(A) COMPUTER NETWORKS	**T**	**6**	**6**
Objectives	• To develop an understanding of computer networking basics. • To develop an understanding of different components of computer networks, variousprotocols, modern technologies and their applications.			
Outcomes	• Students will able to recognize the technological trends of Computer Networking • Students will gain knowledge about technological components of the Network.			

Semester – VI				
Course code 22BCE6E2	**DSE -I**	**T/P**	**C**	**H/W**
	(B)NETWORK SECURITY	**T**	**6**	**6**
Objectives	• To understand the underlying principles of cryptography and network security. • To teach the concepts of securing computer network protocols, based on the application of cryptography techniques.			
Outcomes	• Students will able to understand the most common type of cryptographic algorithm. • Students will understand the Public-Key Infrastructure and security protocols for protecting data on networks			

Semester – VI				
Course code 22BCE6E3	**DSE-II**	**T/P**	**C**	**H/W**
	(C)MOBILE COMPUTING	**T**	**6**	**6**
Objectives	• To develop an understanding of the ways that mobile technologies can be used forteaching and learning. • To understand the impact of mobile computing on the field of education.			
Outcomes	• Students will able to know about the concepts of Mobile Communication and to analyse next generation Mobile Communication System. • Students will able to know about network and transport layers of Mobile Communication and analyze various protocols of all layers for mobile and ad hoc wireless communication networks.			

Semester - V I				
Course code 22BCE6E4	**DSE-II**	**T/P**	**C**	**H/W**
	(D)DATA MINING AND DATA WAREHOUSING	**T**	**6**	**6**
Objectives	• To introduce the concepts of data ware house and data mining, which gives a completedescription about the principles, used, architectures, applications, design and implementation of data mining and data ware housing concepts.			
Outcomes	• Students will able to understand the functionality of the various data mining and data warehousing component. • Students will able to Compare different approaches of data ware housing and data mining with various technologies.			

Semester – VI				
Course code 22BCE6E5	**DSE-III**	**T/P**	**C**	**H/W**
	(E).Net Technologies	**T**	**6**	**6**
Objectives	➢ Know about basics of Net Framework and its working ➢ Know about C# basics and its programming concepts ➢ Learn about advanced and latest features of C# ➢ Know about ADO.net basics and its applications ➢ Know about programming aspects of ASP.net and its applications ➢ Design and develop a website using latest features of Asp.net and C# language ➢ Know about programming aspects of MVC and its applications			

Outcomes	After Completing this course, the students are able to: • Understanding the basics of .Net Framework • Advanced and latest features of C#, ADO.net basics, Entity Framework, ASP.net, Tier of architecture & MVC5.

Semester – VI				
Course code 22BCE6E6	**DSE-III**	**T/P**	**C**	**H/W**
	(F)EMBEDDED SYSTEMS	**T**	**6**	**6**
Objectives	➢ Understand the basic hardware components and their selection method basedon the characteristics and attributes of an embedded system. ➢ Describe the hardware software co-design and firmware design approaches ➢ Know the RTOS internals, multitasking, task scheduling, task communicationand synchronisation ➢ Learn the development life cycle of embedded system			
Outcomes	➢ Describe the differences between the general computing system and the embeddedsystem, also recognize the classification of embedded systems. ➢ Become aware of interrupts, hyper threading and software optimization. ➢ Design real time embedded systems using the concepts of RTOS.			

Semester – VI				
Course code 22BCE6E7	**DSE-IV**	**T/P**	**C**	**H/W**
	(G)Internet of Things	**T**	**6**	**6**
Objectives	➢ To understand the characterization and significance of the Internet of Things ➢ To recognize the building block of Internet of Things ➢ To learn about data and analytics for IoT			
Outcomes	➢ The student will understand the characterization and significance of the Internet of Things ➢ The student is capable to recognize the building block of Internet of Things ➢ The student will get better insight about data and analytics for IoT			

Semester - VI				
Course code 22BCE6E8	**DSE-IV**	**T/P**	**C**	**H/W**
	(H)CLOUD COMPUTING	**T**	**6**	**6**
Objectives	• To know about the basics of cloud computing. • To know about cloud and virtualization along with it how one can migrate over it.			
Outcomes	➢ Students will able to learn the main concepts, key technologies, strengths and limitations of cloud computing. ➢ Students will able to understand and use the architecture of compute and storage cloud, service and delivery models.			

Semester - VI			
Course code 22BCE6PR	**Project**	**C**	**H/W**
		6	**10**

Objectives

1. The students will be allowed to work on any project based on the concepts studied in core/elective courses.
2. The project work should be compulsorily done in the college only under the supervision of the department staffs.
3. The combined project shall be undertaken by the students as a team of two.
4. The number of teams should be equally assigned to existing Staff members.
5. The following list of parameters taken into account for the evaluation of Project work and Viva-voce.
   Total Marks: 100 (Internal: 40 marks, External: 60 Marks)

Parameters:

For Internal Marks: Two review meetings - 2 × 10 = 20 Marks
Overall Performance = 5 Marks

Total = 25 Marks

For External Marks: Project Report = 25 Marks
Project demo &Presentation = 25Marks
Viva-Voce = 25 Marks

Total = 75 Marks

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Outcomes

- Students will able to recognize the technological trends of Computer Networking
- Students will gain knowledge about technological components of the Network.