

VISION

To impart quality education in Information Technology and enable learners to cope with global challenges to build professional career benefitting the sustainable growth of an individual and the society at large.

MISSION

To propose state of the art educational environment equipped with cutting edge technology in the area of Information Technology.

To facilitate learners and faculties with every single opportunity of professional progression embedded in academic scenario itself which can cause enriched workforce contributing to the development of the nation.

To fulfill the noble cause of educating budding technocrats by accelerating the momentum of research and implementing innovative inputs in teaching-learning.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

1. To acquire knowledge of core area of engineering and suitable prerequisites through modern tools and techniques along with enhancing soft skills and continuing professional development.
2. To identify real life problems through proper investigation and to design and develop appropriate solution through systematic analysis which is economically feasible and in accordance with the need of industry, academia and society at large.
3. To exhibit the professional growth as an individual and a team as well; along with ethical responsibility and approach of lifelong learning.

PROGRAMME OUTCOMES (POs)

- a. An ability to apply knowledge of computing, mathematics, science and engineering fundamentals in the information technology and diverse domain.
- b. An ability to identify and analyze the problem to propose the appropriate solution.
- c. An ability to design and develop information technology based solutions which satisfy the demand of the hour.
- d. An ability to investigate and analyze the solution of complex problem with the help of current edge technology.
- e. An ability to learn upcoming technologies and tools to fulfil the needs and necessities of the current trends.
- f. An ability to explore the role of engineering in the progress of the society.
- g. An ability to cultivate the sense of precautions for the environmental safety and other contemporary issues.
- h. An ability to understand ethical responsibility of an individual to contribute towards the growth of nation.
- i. An ability to work proficiently, individually and on teams, including multidisciplinary area, to achieve a common goal.
- j. An ability to communicate effectively among the variety of audience.
- k. An ability to develop the approach of lifelong learning for continuing professional development.
- l. An ability to apply principles of management to achieve the targets within the limitations of available finance.

Name:	Enrolment No:	Semester: 2
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BRANCH: INFORMATION TECHNOLOGY

Sr. No	Name of the Experiment	Date	Marks	Signature										
01	(A) Write a program to perform a calculator. (addition, multiplication, division, subtraction) (B) Write a program to find area of triangle. (a=h*b*.5) (C) Write a C program to interchange two variables with and without use of third variable. (D) Write a C program to enter a distance in to kilometre and convert it in to meter, feet, inches and centimetre. (E) Write a program to convert Fahrenheit temperature to Centigrade. (C= 5*(f - 32)/9)													
02	(A) Write a C program to check if a given year is leap year or not. (Use if statement) (B) Write a C program to read no 1 to 7 and print relatively day Sunday to Saturday. (if else ladder) (C) Write a program to read 3 numbers from keyboard and find out maximum out of these three. (Nested if else) (D) Write a C program to check whether the entered character is capital, small letter, digit or any special character. (if else ladder) (E) Write a program to read marks from keyboard and your program should display equivalent grade according to following table.(if else ladder) <table><tr><td>Marks</td><td>Grade</td></tr><tr><td>100 - 80</td><td>Distinction</td></tr><tr><td>79 - 60</td><td>First Class</td></tr><tr><td>59 - 40</td><td>Second Class</td></tr><tr><td>< 40</td><td>Fail</td></tr></table>	Marks	Grade	100 - 80	Distinction	79 - 60	First Class	59 - 40	Second Class	< 40	Fail			
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03	(A) Write a C program to find factorial of a given number. (B) Write a program to reverse a number. (C) Write a program to print Fibonacci series. (D) Write a C program to find out the Maximum and Minimum number from given 10 numbers. (E) Write a C program to input an integer number and check the last digit of number is even or odd.													

04	<p>(A) Write a C program to find the sum and average of different numbers which are accepted by user as many as user wants. (use <i>While</i> loop)</p> <p>(B) Write a program to calculate average and total of 5 students for 3 subjects (use nested <i>for</i> loops).</p> <p>(C) Write a program to convert given number into word. Example if number is 653 then output will be SIX FIVE THREE. (use do while loop)</p> <p>(D) Write a program to check whether the given number is prime or not.</p> <p>(E) Write a c program to read a positive integer number n and generate output as follows: If n=5 output: 5 4 3 2 1 0 1 2 3 4 5 If n=6 output: 6 5 4 3 2 1 0 1 2 3 4 5 6.</p>			
05	<p>(A) Write a program for $1!+2!+3!+4!+5!$ Up to n terms.</p> <p>(B) Write a program to evaluate the series $1^2+2^2+3^2+.....+n^2$.</p> <p>(C) Write a C program to find $1+1/2+1/3+....+1/n$.</p> <p>(D) Write a C program to find $1+1/2!+1/3!+..+1/n!$.</p> <p>(E) Write a program to evaluate the series. Example sum= $1 - x + x^2/2! - x^3/3! + x^4/4! - x^9/9!$.</p>			
06	<p>A) *</p> <p> **</p> <p> ***</p> <p> ****</p> <p> *****</p> <p>B) *****</p> <p> ****</p> <p> ***</p> <p> **</p> <p> *</p> <p>C) AAAAA</p> <p> BBBB</p> <p> CCC</p> <p> DD</p> <p> E</p> <p>D) 1</p> <p> 1 3</p> <p> 4 5 6</p> <p> 7 8 9 10</p> <p>E) 1</p> <p> 1 1</p> <p> 1 2 1</p> <p> 1 3 3 1</p> <p> 1 4 6 4 1</p> <p>F) *</p> <p> ***</p> <p> *****</p> <p> *****</p> <p> *****</p>			
07	<p>(A) Write a program to find out which number is even or odd from list of 10 numbers using array.</p> <p>(B) Write a program to find maximum and minimum element from 1-Dimensional array.</p> <p>(C) Write a program to search an element in an array, if it is not there then insert it at the end of the array.</p> <p>(D) Write a program to display TRANSPOSE of a matrix.</p> <p>(E) Write a program to print matrix multiplication.</p>			
08	<p>(A) Write a program to replace a character in given string.</p> <p>(B) Write a program to delete a character in given string.</p> <p>(C) Write a program to reverse string.</p> <p>(D) Write a program to convert string into upper case.</p> <p>(E) Write a program that will demonstrate the use of strcat(), strcmp(), strcpy(), strstr(), strrev() functions.</p>			

09	<p>(A) Write a program that defines a function to add first n numbers.</p> <p>(B) Write a function in the program to return 1 if number is prime otherwise return 0.</p> <p>(C) Write a function Exchange to interchange the values of two variables, say x and y. illustrate the use of this function in a calling function. (using Pointers)</p> <p>(D) Write a function that will scan a character string passed as an argument and convert all lowercase character into their uppercase equivalents.</p> <p>(E) Write a program to find factorial of a number using recursion.</p>			
10	<p>(A) Write a program to read structure elements from keyboard.</p> <p>(B) Define a structure type struct personal that would contain person name, date of joining and salary using this structure to read this information of 5 people and print the same on screen.</p> <p>(C) Define structure data type called time_struct containing three member's integer hour, integer minute and integer second. Develop a program that would assign values to the individual number and display the time in the following format: 16: 40:51.</p> <p>(D) Design a structure student_record to contain name, branch and total marks obtained. Develop a program to read data for 10 students in a class and print them.</p> <p>(E) Define a structure called cricket that will describe the following information: Player name, Team name, Batting average. Using cricket, declare an array player with 50 elements and write a C program to read the information about all the 50 players and print team wise list containing names of players with their batting average.</p>			
OEP	<p>(A) Write a program to that demonstrate call by value and call by reference concept in function arguments</p> <p>(B) Write a program to generate Fibonacci series by using recursion.</p> <p>(C) Write a program to access elements using pointer.</p> <p>(D) Write a program for sorting using pointer.</p> <p>(E) Write a program to write a string in file named as string.txt.</p> <p>(F) Write a program to read n integers from the keyboard and store them into a file Final.txt file, separate odd and even numbers and store them in odd.txt and even.txt file. Display the content of all three files.</p>			



**G H P A T E L C O L L E G E O F
E N G I N E E R I N G A N D T E C H N O L O G Y**
DEPARTMENT OF INFORMATION TECHNOLOGY

A.Y. 2019-20, SEMESTER 2
SUBJECT CODE: 3110003
SUBJECT NAME: PROGRAMMING FOR PROBLEM SOLVING

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Name:	Enrolment No:	Semester: 2
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BRANCH: INFORMATION TECHNOLOGY

Sr. No	Name of the Experiment	Date	Marks	Signature
1	Assignment - 1			
2	Assignment - 2			