



Asha M. Tarsadia Institute of Computer Science and Technology

Laboratory Planning

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| Programme Name/Year: | B.Tech. Computer Science and Engineering (CSE)/2022-23 |
| Subject Name and Code: | IT3006 - Programming with C |
| Subject Teacher(s): | Ms. Kamini Sharma, Mr. Vishvajit Bakrola, Ms. Ankita Desai, Mr. Darshan Chauhan, Ms. Twinkle Kosambia |
| Academic Year: | 2022-23 |

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| Sr. No. | Experiment | Date of Experiment | Sign | | | | | | | | | | |
|----------|--|--------------------|--------|----------|-------------|-------|-------------|---------|--------------|------|------|--|--|
| 1. | Write a C program to display: ##### Student Name: Aman Singh Branch: B.Tech. Computer Science and Engineering Enrollment Number: 2022031035100001 ##### | | | | | | | | | | | | |
| 2. | Write a program to calculate the area of the circle and volume of the cylinder. Use $A = \pi * r^2$, $V = \pi * r^2 * h$. Use <i>PI</i> as a symbolic constant. | | | | | | | | | | | | |
| 3. | Write a C program to take temperature from the user in Fahrenheit and display the temperature in Celsius. | | | | | | | | | | | | |
| 4. | Write a C program to take inputs of Day, Date, Month and Year from the user and modify it in such a way that prints the month name given the month number by the user. | | | | | | | | | | | | |
| 5. | Write a C program that scans an integer from the user and checks whether the number is divisible by 5 or not. | | | | | | | | | | | | |
| 6. | Write a C program to take the birth date as an input and prints the current age of the user. | | | | | | | | | | | | |
| 7. | Write a program to read student's total marks as input and program should display equivalent grade according to following table: <table><tr><th>Marks</th><th>Grades</th></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 | Grades | 100 - 80 | Distinction | 79-60 | First Class | 59 – 40 | Second Class | < 40 | Fail | | |
| Marks | Grades | | | | | | | | | | | | |
| 100 - 80 | Distinction | | | | | | | | | | | | |
| 79-60 | First Class | | | | | | | | | | | | |
| 59 – 40 | Second Class | | | | | | | | | | | | |
| < 40 | Fail | | | | | | | | | | | | |

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|--------------------------------|--|-------|-------|-------|-------|----|----|------|------|-----|-----|-----|-----|------|------|----|----|-------|-------|---|---|--|--|
| | Write a C program to read numbers from 1 to 7 and print respective day of the week to the user. | | | | | | | | | | | | | | | | | | | | | | |
| 9. | Write a program to generate the first N number of Fibonacci series. The value of N is to be entered by the user. | | | | | | | | | | | | | | | | | | | | | | |
| Continuous Evaluation-1 | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | Write a program to find out the sum of the first and last digit of a user entered number. | | | | | | | | | | | | | | | | | | | | | | |
| 11. | Write a program to print following patterns: <table border="1" data-bbox="186 609 971 825"> <tr> <td>1</td><td>*</td><td>*****</td><td>ABCDE</td></tr> <tr> <td>12</td><td>**</td><td>****</td><td>ABCD</td></tr> <tr> <td>123</td><td>***</td><td>***</td><td>ABC</td></tr> <tr> <td>1234</td><td>****</td><td>**</td><td>AB</td></tr> <tr> <td>12345</td><td>*****</td><td>*</td><td>A</td></tr> </table> | 1 | * | ***** | ABCDE | 12 | ** | **** | ABCD | 123 | *** | *** | ABC | 1234 | **** | ** | AB | 12345 | ***** | * | A | | |
| 1 | * | ***** | ABCDE | | | | | | | | | | | | | | | | | | | | |
| 12 | ** | **** | ABCD | | | | | | | | | | | | | | | | | | | | |
| 123 | *** | *** | ABC | | | | | | | | | | | | | | | | | | | | |
| 1234 | **** | ** | AB | | | | | | | | | | | | | | | | | | | | |
| 12345 | ***** | * | A | | | | | | | | | | | | | | | | | | | | |
| 12. | Write a program that defines a function to add first N numbers. The value of N is to be entered by the user. | | | | | | | | | | | | | | | | | | | | | | |
| 13. | Write a user defined function with a name <i>swap()</i> to interchange the values of two variables, say x and y. Call your swap() function from the <i>main()</i> function. | | | | | | | | | | | | | | | | | | | | | | |
| 14. | Create a function that scan a character string passed as an argument and convert all lowercase character into their uppercase equivalents. | | | | | | | | | | | | | | | | | | | | | | |
| 15. | Write a C program to read and store the roll no and marks of twenty students using an array. Display the same array to user in appropriate format. | | | | | | | | | | | | | | | | | | | | | | |
| 16. | Write a program to sort given array in ascending order using Bubble sort and Selection sort. | | | | | | | | | | | | | | | | | | | | | | |
| 17. | Write a program to perform various string operations on user entered string. | | | | | | | | | | | | | | | | | | | | | | |
| 18. | Define a structure type struct <i>person</i> that contains <i>person_name</i> , <i>date_of_joining</i> and <i>salary</i> . Write a code to read this information from the user and print the same. | | | | | | | | | | | | | | | | | | | | | | |
| Continuous Evaluation-2 | | | | | | | | | | | | | | | | | | | | | | | |
| 19. | Define a structure called <i>cricket</i> that will describe the following information: <i>Player_name</i> , <i>Team_name</i> , and <i>Batting_average</i> . Using strcture, declare an array player[] with 50 elements and write a C code to read the information about 5 players and print a team wise list containing names of players with their batting average. | | | | | | | | | | | | | | | | | | | | | | |
| 20. | Define a 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 | | | | | | | | | | | | | | | | | | | | | | |

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| | Write a C program to print the address of a variable using a pointer. | | |
| 22. | Write a C program to swap the two values using pointers. | | |
| 23. | Write a C program to print the address of character and the character of string using pointer. | | |
| 24. | Write a C program to perform sorting using a pointer. | | |
| 25. | Write a C program that reads and print the content of the file. The file name is to be taken as a user input. | | |
| 26. | Write a program to copy the contents of the one file to another. | | |
| 27. | Write a program to store a character string in block of memory space created by malloc and then modify the same to store a large string. | | |
| 28. | Mini Project in C programming. | | |

Continuous Evaluation-3