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| **Date:16/05/2021** | **Week Number: 2** |

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| **1** | Write a program to calculate the grade of the student according to the specified marks. Grade A:Marks(>85 and <=100)  Grade B:Marks(>60 and <=85)  Grade C:Marks(>40 and <=60)  Grade D:Marks(>30 and <=40)  Fail: Marks(<30)  **Sample Input:**  Enter your marks:60  **Sample Output:**  You got grade C |
|  | **Program:** |
|  | **Output Screenshot:** |
| **2** | **Write a Program to convert all characters in a given line from lower case to upper case.**  **Sample Input:**  Enter characters to convert case  I am student of 2nd Semester!  **Sample Output**:  I AM STUDENT OF 2ND SEMESTER! |
|  | **Program:** |
|  | **Output Screenshot:** |
| **3** | **Write a C program using bitwise operators for the following:**  i) check whether specified bit is set or not  ii) set the specified bit and print the result  iii) clear the specified bit and print the result  **Sample Input/Output:**  Enter the number which you want check  25  Input number is 25  Enter the bit position, starts from zero  2  bit is not set  Enter the bit position, which you want to set  4  set : 16  The number after set is 25  Enter the bit position, which bit you want to clear  3  set : 0  The number after clear is 17 |
|  | **Description:**   1. **To check whether the first bit is set or not**   **N&(1<<I) is zero then at I bit its not set**  **Is zero then at I bit its set 25: 1 1 0 0 1**  **2^1 2^0**  **I is the bit number**   1. **To set at particluar bit**   **N|(1<<I)**  **Program:** |
|  | **Output Screenshot:** |
| **4** | **a)Write a program to generate a multiplication table using for loop**  **b)Write a program to print the following pattern**  \*  \* \*  \* \* \*  \* \* \* \*  \* \* \* \* \* |
|  | **Program:** |
|  | **Output Screenshot:** |
| **5** | **Write a program to implement a Simple Calculator using switch Statement**  **Sample input:**  Enter an operator (+, -, \*,): +  Enter two operands: 3 4  **Sample Output:**  3.0 + 4.0 = 7.0  **Sample input:**  Enter an operator (+, -, \*,): -  Enter two operands: 7 6  **Sample Output:**  7.0 - 6.0 = 1.0 |
|  | **Program:** |
|  | **Output Screenshot:** |
| **6** | **Write a program to validate a given date and find the next date**  **Sample input:**  Enter the date 12  Enter the month 12  Enter the year 2000  **Sample Output:**  Date is valid & next date is: 13/12/2000  **Sample input:**  Enter the date 1  Enter the month 13  Enter the year 2000  **Sample Output:**  Month is invalid |
|  | **Program:** |
|  | **Output Screenshot:** |
| **1** | **Practice Programs**  **Write a program to find the roots of a quadratic equation.**  **Sample Input:**  Enter coefficients a, b and c: 1 2 1  **Sample Output:**  root1 = root2 = -1.00;  **Sample Input:**  Enter coefficients a, b and c: 1 3 1  **Sample Output:**  root1 = -0.38 and root2 = -2.62  **Sample Input:**  Enter coefficients a, b and c: 2 2 1  **Sample Output:**  root1 = -0.50+0.50i and root2 = -0.50-0.50i |
|  | **Program:** |
|  | **Output Screenshot:** |
| 2 | **Write a program to squeeze repeated characters by inputting the characters in the given order.**  **Sample Input:**  aaaaabbbbbccccddddeeee  **Sample Output:**  abcde  **Sample Input:**  aaa1111gggg3333  **Sample Output:**  a1g3 |
|  | **Program:** |
|  | **Output Screenshot:** |