ASSIGNMENT 2 SELECTION I (*if else if)*

1. Write a program to accept two numbers and display division of the two numbers. Check for divide by zero error. If divider is zero then display appropriate error message with three beeps.

2. Input a number and display whether number is Even or Odd.
    a. Using arithmetic operator
    b. Using bitwise operator

3. Write a program to accept a 5 digit number and check whether it is a numeric palindrome. (If reversed number is same as entered number it is called palindrome.)

4. Write a program to accept number and check whether the number is +ve, -ve and zero.

5. Write a program to find maximum of two numbers using
    a. If – else
    b. conditional operator.

6. Write a program to find maximum of three numbers using
    a. If – else
    b. conditional operator.

7. Write a program to display number of days in the given year. Check condition for leap year. A year is a leap year if it is divisible by 4 but not by 100, except that years divisible by 400 are leap years.

8. Write a program that will calculate the price for a quantity entered from the keyboard, given that the unit price is Rs 5 and there is a discount of 10 percent for quantities over 30 and a 15 percent discount for quantities over 50.

9. Write a program to display number of days in the given month and year using
    a. *Sequence of 12 If else if* statement
    b. *If else if* statement and || operator

10. Write a program to accept a character and decide whether input character is vowel or not.

11. Write a program to accept a character *c* and display category of the input character. Categories are: uppercase, lowercase, digit, octal, hex, alphabet, alphanumeric, printable, control and other.

12. Write a program to accept a point in Cartesian co-ordinate system and decide the quadrant in which the point lies. Also check for special cases point lies on $\pm x\ axis,\ \pm y\ axis,\ origin.$

13. **Write a program to accept a hexadecimal digit (in character from '0' to '9' and 'A' to 'F') and calculate numeric equivalent of the char. Using**
    a. **Arithmetic operators**
    b. **Bitwise operators**

14. **Write a program to accept a hexadecimal digit value (in decimal format i.e. 0 to 15) and calculate ASCII equivalent of the char. Using**
    a. **Arithmetic operators**
    b. **Bitwise operators**

15. Write a program to accept a character from user. If use enters an alphabet, Set 5th bit of given character and print the character. Observe results.

16. Write a program to accept a character from user. If use enters an alphabet Reset, (Clear) 5th bit of given character and print the character. Observe results.

17. Write a program to accept a character from user. If use enters an alphabet Toggle 5th bit of given character and print the character. Observe results.

18. Write a program to convert a BCD number to HEX number. Check the input is valid BCD number.

19. Write a program to check parity of given character. If parity is odd, make it even.

ASSIGNMENT 2 SELECTION II (*switch case)*

1. Write a program to Display menu for favorite color.
   1: red
   2: green
   3: blue
   Ask user to enter choice [1…3]
   Display users for favorite color as per choice in text.

2. Write a program for four function calculator. Four functions are +, - , *, /

3. Write a program to display number of days in the given month and year.

4. Write a program to display day of week from given date (day, month and year).

5. Write a program to accept a point in Cartesian co-ordinate system and decide the quadrant in which the point lies. Check for special cases point lies on ± x axis, ±y axis, origin.

ASSIGNMENT 2 SELECTION ☺

- Write a program to round a floating point number up to 1, 2, 3 places as per user's choice.
- Write a program to find maximum of two numbers without using if else or ternary operator.