**Smt. Chandaben Mohanbhai Patel Institute of Computer Applications**

**Bachelors of Computer Applications**

**Semester – V**

**CA 315 – Advanced Programming with .NET Framework**

**Practical Assignment**

1. Write a program to get user from input and calculate area of circle.
2. Write a program to calculate area of triangle.
3. Write a program to calculate simple interest.
4. Write a C# program to print the following string in a specific format:

Twinkle, twinkle, little star,

How I wonder what you are!

Up above the world so high,

Like a diamond in the sky.

Twinkle, twinkle, little star,

How I wonder what you are

1. Write a C# program that accepts an integer (n) and computes the value of n+nn+nnn.
2. Write a C# program to convert all units of time into seconds.
3. Write a C# program to compute the greatest common divisor (GCD) of two positive integers.
4. Write a C# program to display your details like name, age, and address in three different lines.
5. Write a C# program to calculate number of days between two dates.

Sample dates: (2014, 7, 2), (2014, 7, 11)

Expected output: 9 days

1. Write a C# program to solve (x + y) (x + y).

Test Data: x = 4, y = 3

Expected Output: ((4 + 3)2) = 49

1. Write a C# program to get the difference between a given number and 17, if the number is greater than 17 return double the absolute difference.
2. Write a C# program to sum of three given integers. However, if two values are equal sum will be zero.
3. Write a C# program to check if multiple variables have the same value.
4. Write a C# program to check whether a number is divisible by another number. Accept two integer’s values form the user.
5. Write a C# program that will return true if the two given integer values are equal or their sum or difference is five.
6. Write a program to check if the given number is odd or even.
7. Write a C# program to check if the given year is a leap year or not.
8. Write a C# program where user enters the month and program returns number of days.
9. Modify program 9 so that user also inputs year and give your output after considering leap year.
10. Write a C# program to test whether a number is within zero - 100 or 0 - 1000 or 0 - 2000.
11. Write a C# program to calculate the sum of three given numbers, if the values are equal then return three times of their sum.
12. Write a C# program to sum of the first n positive integers.
13. Write a program to check if the given number is within a user specified range.
14. Write a program to divide two values and return a result with floating point.
15. Write a program to convert minutes into seconds.
16. Write a program to convert hours into seconds.
17. Write a program to divide two numbers and return a reminder.
18. Write a program to find area of triangle.
19. Ask user for any number and print next and previous number based on number given by user.
20. Write a C# program to compute the digit distance between two integers.

The digit distance between two numbers is the absolute value of the difference of those numbers.

For example, the distance between 3 and -3 on the number line given by the |3-(-3)| = 6 units

Digit distance of 123 and 256 is

Since |1 - 2| + |2 - 5| + |3 - 6| = 1 + 3 + 3 = 7

1. Write a C# program to get a new string from a given string where "Is" has been added to the front. If the given string already begins with "Is" then return, the string unchanged.
2. Write a C# program to test whether a passed letter is a vowel or not.
3. Write a C# program to calculate the sum of the digits in an integer.
4. Write a C# program to check whether a specified value is contained in an array.

Test Data:

3 -> [1, 5, 8, 3]: True

-1 -> [1, 5, 8, 3]: False

1. Write a C# program to concatenate all elements in a list into a string and return it.
2. Write a C# program to filter the positive numbers from a list.
3. Write a C# program to compute the product of a list of integers.
4. Write a program that asks the user how many Fibonnaci numbers to generate and then generates them.
5. Write a program to check if the string is palindrome.
6. Write a program to reverse a string.
7. Write a program to check if the given number is prime number.
8. Write a C# program to print all even numbers from a given numbers list in the same order and stop the printing if any numbers that come after the user defined number stop printing.

Numbers = [386, 462, 47, 418, 907, 344, 236, 375, 823, 566, 597, 978, 328, 615, 953, 345,

399, 162, 758, 219, 918, 237, 412, 566, 826, 248, 866, 950, 626, 949, 687, 217,

815, 67, 104, 58, 512, 24, 892, 894, 767, 553, 81, 379, 843, 831, 445, 742, 717,

958,743, 527]

1. Write a C# program to print out an array containing all the colors from color\_list\_1, which are not present in color\_list\_2.
2. Write a program to return last element in the array.
3. Arrange number from an array in ascending order.
4. Write a program to find the minimum and maximum number from the list.
5. Write a C# program to convert decimal to hexadecimal.
6. Write a C# program to check if variable is of integer or string.
7. Write a C# function to find the maximum and minimum numbers from an array of numbers.
8. Write a C# function to check if the given number is repeating in a list.