End Sem 1 Practical

STUDENT'S NAME – PRIYANSH SINGH
STUDENT'S UID – 20BCS5967
CLASS AND GROUP – CSE9A
SEMESTER – 01
Group/Set – 6/Set-5

PRACTICAL 1

WAP to find sum of first and last digit in a number by passing that number into function.

(Eg. n=7859: result = 7+9=16).

PROGRAM CODE 1

```c
#include <stdio.h>

int answer(int n)
{
    int first, end;
    end = n % 10;
    first = n;

    while (n >= 10)
    {
        n = n / 10;
    }
    first = n;

    int sum;
    sum = first + end;
    return sum;
}

int main()
{
    int n;

    printf("Enter a number = ");
    scanf("%d", &n);
```

```
    printf("Sum of first and last digit = %d", answer(n));

    return 0;
}
```

OUTPUT 1

```
Enter a number = 15
Sum of first and last digit = 6
```

```
Enter a number = 7645
Sum of first and last digit = 12
```

```
Enter a number = 15648
Sum of first and last digit = 9
```

Flowchart 1

1. Enter a number (n) and pass that number into the function “answer”.
2. End digit is extracted using n%10. Eg n = 112, so n%10 = 2.
3. To extract the first number, while loop is used to divide the number by 10 until it become less than 10, the resulting number is the first number.
   Eg n = 112, n/10 ->11 ; 11/10-> 1.
4. Now the addition of first and the end digit is done by the function and

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PRACTICAL 2

WAP to read numbers until -1 is entered and display whether the number is prime or composite (use pointers).

PROGRAM CODE 10.2

```c
#include <stdio.h>

int main()
{
    int a = 1;
    while (a != -1)
    {
        printf("Enter number to check it = ");
        scanf("%d", &a);
        if (a != -1)
        {
            int b, x;

            int *ptr1 = &a;

            b = *ptr1 / 2;

            for (int i = 1; i <= b; i++)
            {
                if (*ptr1 % i == 0)
                {
                    x = i;
                }
            }

            if (x == 1)
            {
                printf("\n%d is a prime number!\n\n", *ptr1);
            }
            else
            {
                printf("\n%d is a composite!\n\n", *ptr1);
            }
        }
        else
        {
            printf("\nYou have entered -1\nPROGRAM TERMINATED!!!");
            break;
        }
    }

    return 0;
}
```

OUTPUT 2

```
Enter number to check it = 2

2 is a prime number!

Enter number to check it = 7

7 is a prime number!

Enter number to check it = 12

12 is a composite!

Enter number to check it = 21

21 is a composite!

Enter number to check it = -1

You have entered -1
PROGRAM TERMINATED!!!
```