

26/nov/25

1) Write a 'C' program to print the Sum of digits of a number using recursive function.

```
A. #include <stdio.h>
int sum_of_digits (int num) {
    int sum = 0, digit;
    while (num > 0) {
        digit = num % 10;
        sum += digit;
        num = num / 10;
    }
    return sum;
}
```

```
int main() {
    int number;
    printf ("Enter any number : ");
    scanf ("%d", &number);
    printf ("Sum of digits = %d \n",
        sum_of_digits (number));
    return 0;
}
```

Output:-

Enter any number : 456  
Sum of digits = 15

2) write a 'C' program to print reverse of a number using function: (recursive)

```
A. #include <stdio.h>
int reverse = 0;
void reverseNumber (int num) {
    if (num == 0) {
        return;
    }
    reverse = reverse * 10 + (num % 10);
    reverseNumber (num / 10);
}
int main() {
    int number;
    printf ("Enter a number: ");
    scanf ("%d", & number);
    reverseNumber (number);
    printf ("Reverse of %d is: %d", number,
        reverse);
    return 0;
}
```

Output: -

Enter a number : 12345

Reverse of 12345 is : 54321

3. Write 'C' program to print Swap of two numbers without using third variable.

```
A. #include <stdio.h>
int main() {
    int a, b;
    printf("Enter two numbers: ");
    scanf("%d %d", &a, &b);
    a = a + b;
    b = a - b;
    a = a - b;
    printf("After Swapping: a = %d, b = %d", a, b);
    return 0;
}
```

Output: -

Enter two numbers: 5 10

After Swapping: a = 10, b = 5