

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 a 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