

Roll No.:

Name:

Time:40 minutes

Midsem-I: MTH409

Maximum Marks 30

1. Write down the output for each of the following program?

[20]

a.

```
#include<stdio.h>
int main()
{   int x=4, y, z;
    y = x++;
    z = x--;
    printf("%d, %d, %d\n", x, y, z);
    return 0;}
```

Output: _____, _____, _____

b.

```
#include<stdio.h>
int main()
{   int i=-3, j=2, k=0, m;
    m = !i && ++j || ++k;
    printf("%d, %d, %d, %d\n", i, j, k, m);
    return 0;}
```

Output: _____, _____, _____, _____

c.

```
#include<stdio.h>
int main()
{   int i=15;
    printf("%d, %d, %d, %d, %d\n", i<=15, !i!=0, i>10, i+!i&&5,i+(!i&&5));
    return 0;}
```

Output: _____, _____, _____, _____, _____

d.

```
#include<stdio.h>
int main()
{   int i=2, j=-1, k=5, m;
    m = ++i && j++ || ++k;
    printf("%d, %d, %d, %d\n", i, j, k, m);
    return 0;}
```

Output: _____, _____, _____, _____

e.

```
#include<stdio.h>
int main()
{   int i=3, j=4, m=0;
    while(i+j<=24)
    {   m += i+j++;
        i++;
        if(j%2==0)continue;
        j *= 2;}
    printf("%d, %d, %d, %d\n", i, j, m);
    return 0;}
```

Output: _____, _____, _____

2. Tick the correct answer in each of the following:

[4]

i. Which of the following is not a logical operator?

(A) && (B) != (C) || (D) !

ii. The correct order of the operators (from high to low) is

(A) !, %, ==, +(binray), = (B) !, %, +(binray), =, ==
(C) !, %, +(binray), ==, = (D) %, +(binray), !, ==, =

iii. The binary representation of the decimal number 9.125 is

(A) 1001.001 (B) 1001.01 (C) 1001.0001 (D) 1011.001

iv. Which of the following is the output of the following code?

```
#include<stdio.h>
int main()
{
    int i = 5, j = 20;
    if(!i-4 && j++)
        printf("i = %d\n", i);
    else
        printf("j = %d\n", j);
    return 0;
}
```

(A) i = 5 (B) i = 1 (C) j = 20 (D) j = 21

3. Circle the error(s) if any are present in the following code.

[6]

```
#define NT 5;
#include<stdio.h>
int main()
{
    int Float,a&b,i,j12,k;
    double char,Int,f,g,h;
    char ch=65;
    i=2,j12=4,k=5,
    j12=ch;
    i=3=k;
    i-k=5;
    5==i-k;
    f=2.0,g=4.0
    j12==ch;
    k==NT;
    k=NT
    return 0;}
```