

1. The following C statements are part of a C program. Write down the output. [9]

```
a. int i,j;
   for(i=1;i<5;i++)
   {
       for(j=1;j<=i;j++)
       {
           printf("%d",i);
       }
       printf("\n");
   }
```

```
b. int a=3,b=8,c;
   c = a + b%a+b/a*a;
   while(a+b < 16)
   {
       a *=2;
       b--;
   }
   printf("a=%d b=%d c=%d\n",a,b,c);
```

a= b= c=

```
c. int i=0,j=1,k=-1;
   if(i++ && --j)
   {
       k +=10;
   }
   else
   {
       k *=10;
   }
   printf("i=%d j=%d k=%d\n",i,j,k);
```

i= j= k=

2. The following program calculates the first 5 multiples of a positive number n . Complete the program by inserting suitable statements after the comments. [6]

```
#include <stdio.h>
int main()
{
int n,i;
//Read n from the keyboard

//If n is invalid, terminate the program with appropriate message

printf("The first 5 multiples of %d are\n",n);
// Use a while loop or for loop to print the first 5 multiples of n

return 0;
}
```

Test data and expected output:

```
Enter a +ve integer :-2
Invalid input
```

```
Enter a +ve integer :4
The first 5 multiples of 4 are
4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
```