

1. The following C statements are part of a C program. Write down the output. [13]

```
a. int a=4,b=2,c;
   b *=(a++)+2;
   c=b/++a*b/b*25/b;
   printf("a=%d and b=%d\n",a,b);
   printf("c=%d\n",c);
```

```
b. int i=0,j=-2,k=0,m;
```

```
    if((!i || --j && k++) && (i++ || j++ && !k++))
        m=i+j+k;
    printf("i=%d  j=%d  k=%d  m=%d\n",i,j,k,m);
```

c.

```
int i=0,j=-2,k=2;
while(i+j<k)
{
    if(i%2==0)
        i +=2;
    else
        j +=2;
    if(k%2==0)
    {
        k++;
        continue;
    }
    k -=2;
}
printf("i=%d  j=%d  k=%d\n",i,j,k);
```

```

d. int i,j,k=6;
   for(i=0,j=2;i+j<k;i++)
       {
           j +=i++;
           k++;
       }
   printf("i=%d  j=%d  k=%d\n",i,j,k);

```

2. The following program calculates the area of a triangle ABC in a two-dimensional plane. Here a,b,c are the lengths of the sides, s is semi-perimeter and A is the area of the triangle. Complete the program by inserting suitable statments after the comments. [7]

```

#include<stdio.h>
#include<math.h>
int main()
{
double a,b,c,s,A;
//Read a,b,c from keyboard

```

```

//If the triangle is invalid, then stop with appropriate message

```

```

//Calculate the area of the triangle

```

```

//Print the area of the triangle using two decimal places

```

```

return 0;
}

```