1. The following is part of a C program. Circle the errors with a brief explanation.   [5]

```
int double,Char,printf,d;
char a=73,b#a,z;
double c=Char,x=2,y,2a;
d+y=2;
y+2==4.0;
d+y > 6;
y=z;
```

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

```
a. int x=4,y=4,z;
   z=x++ + y > y+5 ? ++y:9;
   printf("x=%d  y=%d  z=%d\n",x,y,z);

   ------------------
   x=      y=      z=
   ------------------

b. int a=3,b=7,c;
   c = a + b%a*b/a*a;
   printf("c=%d\n",c);

   ------------------
   c=
   ------------------

c. int i=-1,j=1,k=0,m;
   m=(++i || j--) && k++;
   printf("i=%d  j=%d  k=%d  m=%d\n",i,j,k,m);

   ------------------
   i=      j=      k=        m=
   ------------------
```

3. The following program calculates the value of z from the definition

$$z = \begin{cases} 4 & x \leq -2 \\ 4 - x^2 & -2 < x < 2 \\ 1 & x = 2 \\ 0 & x > 2. \end{cases}$$

Complete the program by inserting suitable statments after the comment. [6]

```c
#include <stdio.h>
int main()
{
double x,z;
printf("Enter x:");
scanf("%lf",&x);
/*Insert the statements in the space below*/




printf("x=%0.2lf  and z=%0.3lf\n",x,z);
return 0;
}
```