

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

```
int Double, char, print, d;
char a=W, b#a, z;
double 2a, c=Double, x=2, y;
2==d+y;
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=3, y=3, z;`  
`z=x++ + y > y+3 ? ++y:7;`  
`printf("x=%d y=%d z=%d\n", x, y, z);`

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

b. `int a=3, b=8, c;`  
`c = a + b*a*b/a*a;`  
`printf("c=%d\n", c);`

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

c. `int i=0, j=1, k=-1, 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

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

Complete the program by inserting suitable statements after the comment.

[6]

```
#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;
}
```