1. Explain the effect of the following code:

```
int i;
…
while (i = 2) {
    printf (“Examples of even numbers are: %d %d %d\n”, i, i+2, i+4);
    i = 0;
}
```

Where is the source of the problem?

2. In the following code to calculate the area of a circle using a function, will it compile properly? If not, how do you solve the problem? Explain your solution.

```
#include <stdio.h>

float AreaOfCircle(float);

int main(void)
{
    float radius, area;
    float PI = 22/7.0;

    printf("Radius = ");
    scanf("%f", &radius);
    area = AreaOfCircle (radius);
    printf("Area = %f\n", area);
    return 0;
}

float AreaOfCircle (float r)
{
    return (PI * r * r); /* area equals Pi times radius squared*/
}
```

3. What is the difference between the declaration and definition of a data object or function? You can use the code example in Q2 to explain.

4. Which of the following is an **incorrect** assignment statement? Explain briefly.
   (a) n = m = 0
   (b) value += 10
   (c) mySize = x < y ? 9 : 11
   (d) testVal = (x > 5 || x < 0)
   (e) none of the above

5. When you compile and execute the following code, what will be the output? Explain.

```
#include <stdio.h>

int main() {
        float c= 3.14;
        printf("%f", c%2);
        return 0;
}
```

6. What is the output when you execute the following code? Explain.

```
#include <stdio.h>

int main() {
    int a=5;
    a=printf("Good")+ printf("Boy");
    printf("%d",a);
    return 0;
}
```