

CS111-Introduction to Computers

Programming Sheet 1 (Input\Output and Data Types)

1. Write a C program that prints out the following message:

“Hello there,
that’s me writing my own C program”

2. Extract the error of the following C code:

```
void main()
{
    printf("hello world! This is my first C program.\n");
    return 0;
}
```

3. Which of the following are unacceptable variable names and why?

Void	Max_Num	double	G
Sue’s	#insert	Part20%	printf
Integer	variable555	five_percent	_stuff
g2b-55xyz	gig..balance		

4. Indicate which of the following are valid type int, double, or char, and which are not:

14	15.0	‘*’	\$
-999	0.123	‘R’	“R”
‘True’	32e-4	‘-5’	0.0

5. Given the following numbers as inputs to the given scanf statement, what are the values of the variables a, b, c, and d after the execution of the scanf statement?

12345678 12 10.5 60

```
scanf ("%3d %d %f %c", &a, &b, &c, &d);
```

```
10 20 30 40
```

```
scanf ("%3d %d %f %c", &a, &b, &c, &d);
```

6. The variables a, b, c, d, and e have the following values: 10, 10.5, 20, 'A', and 'B', respectively. What is the output of the following printf statements?

```
printf ("%d %f %d %d %c", a, b, c, d, e);
```

```
printf ("%d %f %f %c %d", a, b, c, d, e);
```

7. If $X = 234$, $Y = -234$, $Z = -99.42$, and $K = 999.4$, what is the output of the following statements?

```
printf ("%4d %7f %5.2f %6.1f", X, Y, Z, K);
```

```
printf ("%5d %d %.2f %2.2f", X, Y, Z, K);
```

8. Assume that an input is entered and equals 123.235, what is the value of X in each of the following cases?

```
scanf ("%f",&X);
```

```
scanf ("1%f",&X);
```

```
scanf ("2%f",&X);
```

```
scanf ("3%f",&X);
```