Quiz 1

CPSC-115 Fall 2013

Remember that all questions which involve writing code are graded on style as well as correctness. You do NOT need to include comments in your code answers.

1) Trace the following code and show output in the space indicated. You must trace the code, showing memory locations and values as shown in class for full credit. (25 pts)

x = 10

y=3

z= 3.0

num1 = x / y

print “num1 = “ , num1

num2 = x / z

print “num2 = “, num2

num3 = x + 5 \* 3 – 1 + y \* 4 / 2

print “num3 = “ , num3

x = x + 2

num4 = x % y

print “num4 = “, num4

num5 = float(y/2)

print “num5= “, num5

num6 = float(y) / 2

print “num6= “ , num6

2) Assume the existence of a variable x. Write a single python if-statement that will output “okay” if the value in x is 56 or if the value in x is between 100 and 200 inclusive. (10 pts)

3) You are to write a program that will calculate shipping charges for an online retailer. Your program will take as input the cost of an order, the shipping cost and a coupon code, which will be a number. If the value of the coupon code is 300 or higher, the order qualifies for a shipping discount, otherwise it does not. If it does qualify for a discount, it will receive free shipping on orders of $500 or more, a 50% shipping discount on orders of $300 up to $500 and a shipping discount of 30% otherwise. Your output is to contain the following: The input values, the new shipping cost (only if there is a discount) and the final total (order cost with the shipping included). (35 pts)

4) You are to write a python program to help predict the length of time a road trip will take. Given the length of a trip in miles and an average traveling speed in miles per hour (you may assume that these are both integers), your program is to determine the predicted number of hours and minutes the “driving only” portion of the trip will take. However, to find the total predicted trip time, your program must also account for stops, with the assumption that for every 200 miles, there will be a 20 minute stop. Your program must output both the predicted driving only time and the predicted total trip time in hours and minutes Be sure that your output is clear and complete and easy to completely understand. (30 pts)