### CSCI 151 Fall 2013 TEST 2 PREP

### Student Name:

* **Date: October 25, 2013**
* **The only allowed material is ONE PAGE OF NOTES and COMPUTER.**
* **TEST 2 consists of Two Parts**
	+ **Part I - 60 points – 2 short questions**
	+ **Part II - 40 points - 1 program writing question**

**Question 1**

1. Give an example of the input to receive the following output:

bony

yana

1. Give an example of the input to receive the following output:

yana

python

1. List the names of all functions in this program.
2. List the names of formal and actual parameters for each function
3. List all function calls in the main function

def who(a, b):

 if ((a+b) > 5):

 print (“yana”)

 else:

 print(“bony”)

def guess(a, b, c):

 k = a%10+b%10+c%10

 if (k%2 == 0):

 print(“yana”)

 else:

 print(“python”)

def main():

 n1= int(input(“enter number “))

 n2= int(input(“enter number “))

 a= int(input(“enter number “))

 b= int(input(“enter number “))

 c= int(input(“enter number “))

 who(n1, n2)

 guess(a, b, c)

main()

**Question 2**

1. Give an example of the input to receive the following output:

good

TEST

yana

1. Give an example of the input to receive the following output:

bad

QUIZ

python

1. List the names of all functions in this program.
2. List the names of formal and actual parameters for each function
3. List all function calls in the main function

def fun(a, b):

 if ((a+b) != (5//2)):

 print (“TEST”)

 else:

 print(“QUIZ”)

def what(a):

 if (a == (2%3)):

 print(“yana”)

 else:

 print(“python”)

def good(a):

 if (a % 3 >= 2):

 print(“good”)

 else:

 print(“bad”)

def main():

 a\_num = int(input(“enter number “))

 b\_num = int(input(“enter number “))

 good(a\_num)

fun(a\_num, b\_num)

 what(a\_num)

main()

**Part II Sample Program – you would need to write the program on the computer and send it by e-mail at the end of the exam. Don’t need to write any comments**

The user travels at 60 miles per hour down the interstate to see the stockbroker. At stockbroker’s office user buys stock and pays $32.87 per share. User also pays a commission which is 2% of the stock cost. After purchasing the stock, user travels to his/her workplace down the same interstate.

Write the program that asks user the following information: the number of hours he/she traveled down the interstate to see the broker, the number of hours he/she traveled down the interstate to the workplace, and the number of stock shares he/she purchased.

The program calculates and displays the following: the distance user traveled to broker, the distance user traveled to workplace, and the total cost of the stock user paid.

Use the following formula to calculate the distance:

Distance = Speed \* Time

You have to use To-Down design in this program. Define ALL constant values as GLOBAL CONSTANTS.

**Bonus Program1 (5 points): Solve problem 6 on page 154**

**Bonus Program2 (5 points): Solve problem 8 on page 154**