**Lab4 – 40 points total KEY**

**Program: (25 points)**

Well structured and commented code (10 pts.)

No errors and doesn’t crash (10 pts.)

well formatted output (5 pts.)

**ISAT 252**

**Worksheet 8: Using Decision Structures (15 points total)**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_KEY- 15 points\_\_\_\_\_\_\_\_ Section: \_\_\_\_\_\_\_\_

1. 1. A chip manufacturer discounts the price of its product (usually $87) according to the amount of units the customer buys. If the customer buys between 100 and 500 units, the discount is 5% of the price per unit, a purchase of more than 500 has a discount of 7% per unit. Write the if...elif…else statement for the code below that calculates and displays the total of a purchase.

UNIT\_PRICE = 87.00

units = 0.0

PurchasePrice =0.0

TotalPurchase =0.0

units = float(“Please enter the number of units.”)

**‘between 100 and 500 INCLUSIVE so we need >= AND <= check for this!**

**If units >= 100 and units <= 500:**

**(6-points)**

PurchasePrice = UNIT\_PRICE \* 0.05

TotalPurchase = PurchasePrice \* units

print(TotalPurchase)

**elif units > 500: (3-points)**

**(3-points)**

PurchasePrice = UNIT\_PRICE \* 0.07

TotalPurchase = PurchasePrice \* units

Print(TotalPurchase)

2. Determine the output displayed in the picture box when the command button is clicked.

num =0.0

num = float(“Number?”))

if num < 0:

print( "Negative")

elif num = 0:

print("Zero")

else:

print( "Positive")

change =0.0

dollars = 0

change = float(“enter the change”)

dollars = int(change / 100)

if change >= 100:

print("Your change contains " + \

format(dollars, '2.2f') + " dollars"

else:

print( "Your change contains no dollars.")

**(one point each = 6 points total)**

Output for each value entered in txtNum Output for each value entered in txtNum

456 \_Your change contains 5 dollars\_ -2 \_\_\_\_\_\_\_\_\_Negative\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

100 \_Your change contains 1 dollars 100 \_\_\_\_\_\_\_\_\_Positive\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

45 \_Your change contains no dollars 0 \_\_\_\_\_\_\_\_\_ Zero\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_