Lab #4

Programming and Algorithms

Please complete all of the following questions:

1. Write a Python program to print out the first five even numbers, starting with 2, using a WHILE loop.

HINT:

# PROGRAM FirstFiveEven:

a = 1

while \_\_\_ != \_\_\_:

# DO

print(a \* \_\_\_)

\_\_\_\_ = \_\_\_\_\_\_\_\_

# ENDWHILE;

# END.

1. Write a Python program to calculate the average of the first five numbers 1 to 5, using a WHILE loop.

HINT:

# PROGRAM AverageFive:

a = 1

total = 0

while \_\_\_ != \_\_\_:

# DO

Total = \_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ = \_\_\_\_\_\_\_\_

# ENDWHILE;

print(total / 5)

# END.

1. Write a Python program to implement the factorial program using a FOR loop.

HINT:

# PROGRAM FactorialFOR:

value = int(\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

total = 1

for x in range(value, 0, -1):

total = \_\_\_\_\_ \* x

# ENDFOR;

print(\_\_\_\_\_\_\_\_\_)

# END.

1. Run the following Python program, and explain what it does (between 100 and 200 words), focusing particularly on the FOR statement, and the PRINT statement.

# PROGRAM Print1To5For:

for a in range(1, 97, 10):

# DO

print(a, a+1, a+2, a+3, a+4, a+5, a+6, a+7, a+8, a+9)

# ENDFOR;

# END.

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| e-mail me a completed solution to each of the above programs in a Word document, and include Labs #1-#3 in this document also.  e-mail to [Damian.Gordon@dit.ie](mailto:Damian.Gordon@dit.ie) with subject heading “DT255 PaA Lab #1-4” |