

**National University**

**of Computer & Emerging Sciences Peshawar Campus**



Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Roll No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Program: BSCS

Semester: SPRING – 2018

Time Allowed: 1: 00 hour

Course: CS101 (Introduction to Computing)

Examination: Sessional I

Total Marks: 25 Weightage: 15%

Date: 19/2/2018

Instructor: Shakir Ullah Shah

**NOTE:** Attempt all questions. In case of an ambiguity in a question, make an assumption, write your assumption and carry on with the question. **Two marks for intuitive and meaningful Identifier names and function documentation. Hint for last question: dx = x2 – x1, dy = y2 – y1**

1. In the following code there are two **NameError**. Try to locate and correct it: [2]

**def** fizzbuzz(number):

output = str(number)

**if** number % 3 == 0:

output = output+**"is divisible by 3"**

**return** putput

**print** fizzbuzz(123)

1. What will be the output of the following:[2+3+5]

2.1

def print\_numbers(n):

if n==1:

print n

#return

else:

print n

print\_numbers(n-1)

print print\_numbers(7)

2.2

def my\_function(x,y,z):

if x>y:

if y>z:

return x,y,z

elif x>z:

return x,z,y

print 1,my\_function(1,2,3)

print 2,my\_function(1,3,2)

print 3,my\_function(2,1,3)

print 4,my\_function(2,3,1)

print 5,my\_function(3,1,2)

print 6,my\_function(3,2,1)

2.2

def newLine():

print '|'+'+'\*5+'|'

def threeLines():

newLine()

newLine()

newLine()

print "First Line."

threeLines()

print "Second Line."

1. Declare a variable ‘dollars’ and ‘cents’ and assign them 50 and 30 respectively, then show the output like **I have $50.30** [3]
2. Write a function ‘**isDivisible**’ that takes two arguments. isDivisible **returns either True or False** to indicate whether the first parameter is or is not divisible by second parameter. e.g. [4]

isDivisible(12,5) isDivisible(8,2)

12 is not divisible by 5 8 is divisible by 2

1. Write a function ‘distance’ to find the distance between two points, given by the coordinates (x 1 , y 1 ) and (x 2 , y 2 ). By the Pythagorean theorem, the distance is:

[6]

distance (1,2,4,6)=