BRAC UNIVERSITY
Department of Computer Science and Engineering
Course: Programming Language II (CSE111)

Examination: Lab Midterm (Tracing)		SET **A**
Name:	**ID:**	**Sec:**

```
1  class A:
2   def __init__(self):
3    self.x = 3
4    self.y = 2
5    self.sum = 1
6   def methodC(self, p, q):
7    self.x = p + 2
8    self.y = q - 3
9    print(self.x, " ", self.y," ", self.sum)
10   return self.x + self.y
11
12 class B:
13  def __init__(self):
14   self.sum = 3
15   self.x = 2
16   self.y = 1
17
18  def methodA(self):
19   x, y = 4, 6
20   k = A()
21   s = B()
22   k.sum = self.x
23   s.sum = self.y + k.y
24   s.y = k.methodC(x, y) + self.y
```

```
25    self.y = self.y + self.methodB(k, y)
26    self.sum = x + y + k.sum
27    print(s.x," ", k.y," ", self.sum)
28
29
30  def methodB(self, p, q = 3):
31    x, y = 7, 8
32    p.x = self.x + x
33    p.y = self.y + y
34    self.sum = p.sum
35    print(p.x, " ", y," ", self.sum)
36    if q == 3:
37      return p.x
38    else:
39      return p.x + q
```

What is the output of the following code sequence? m = B() m.methodA()	x	y	sum

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Examination: Lab Midterm (Code)		**SET A**
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Design the **Meal** class with necessary methods to generate the output shown below.

```
course = Meal("We need help with our
Meal plan")
c1 = Course("a23", "Appetizer", "Thai
Soup", "Prawns")
course.addCourse(c1)
print(".....................")
print(course.showCourseByNo("a23"))
print(".....................")
c2 = Course("m102", "Main Course",
"Beef Steak" )
course.addCourse(c2)
print(".....................")
print(course.showCourseByNo("m102"))
print(".....................")
c3 = Course("a44", "Appetizer",
"Mushroom Soup")
course.addCourse(c3)
print(".....................")
print(course.showCourseByNo("a44"))
print(".....................")
course.allAppetizers()
course.allMainCourses()
```

```
.....................
Course No: a23
Name: Appetizer
Dish: Thai Soup
Ingredient(s): Prawns
.....................
.....................
Course No: m102
Name: Main Course
Dish: Beef Steak
Ingredient(s): Imported Beef
.....................
.....................
Course No: a44
Name: Appetizer
Dish: Mushroom Soup
Ingredient(s): Mushroom
.....................
Here is the whole Meal Plan:
Number of Soups: 2
{'a32': ['Thai Soup', 'Prawns'],
'a44': ['Mushroom Soup',
'Mushroom'}
Number of Main Courses: 1
{'m102': ['Beef Steak', 'Imported
Beef']}
```