

BRAC UNIVERSITY

Department of Computer Science and Engineering

Examination: Midterm

Duration: 60 Minutes

No. of Questions: 3

CSE 111: Programming Language II

Semester: Fall 2023

Full Marks: 25

No. of Pages: 2

Name: (Please write in CAPITAL LETTERS)	ID:	Section:
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- ✓ Use the back **part** of the answer script for rough work. **No washroom breaks.**
- ✓ At the end of the exam, put the question **paper** inside the answer script and **return both.**

Question 1: CO1 [5 Points]

Design the “PC” class with required properties to produce the given output for the provided driver code.

#Write your code here lenovo = PC('Lenovo IdeaPad', 80500, 'Backlit Keyboard', 'Touch', 'Type-C') print(lenovo.specPC()) print('-----1-----') lenovo.addExtraParts('CPU Cooler', 7000) print(lenovo.specPC())	Output: Model Name: Lenovo IdeaPad Price: 80500 Extra Features: Backlit Keyboard, Touch, Type-C -----1----- Model Name: Lenovo IdeaPad Price: 87500 Extra Features: Backlit Keyboard, Touch, Type-C, CPU Cooler
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Question 2: CO2 [8 Points]

1	class MidA:
2	def __init__(self, x, y=0):
3	self.z = x+y
4	def mA(self, z=5):
5	temp= z + self.z
6	if temp<8:
7	self.z = self.z+ self.mB(temp)
8	else:
9	self.z = self.mB([temp,self.z])+ self.z
10	print(z, temp, self.z)
11	def mB(self, temp):
12	self.z += self.z
13	if type(temp)== int:
14	return self.z + 5 + temp
15	else:
16	print(temp[0], temp[1], self.z)
17	return self.z - 3 + temp[1]

Illustrate the output of the following statements:

```
m1= MidA(2, 3)
m1.mA(4)
m1= MidA(1)
m1.mA()
```

Output [Answer on question paper]		
	9	
5		

Question 3: CO1 [12 Points]

Design the **bKashAccount** class with the necessary properties to produce the given output for the provided driver code. **Hint:**

1. One can only make bill payments to the billers that are included in the bKash app's list.
2. Your code should work for any number of arguments passed to the payBill() method

#Write your code here

```
billers = ['Desco', 'Titas', 'Dhaka WASA', 'BTCL']
acc1 = bKashAccount('019278', 'Zafar')
acc2 = bKashAccount('018903', 'Abid', 300)
print(acc1.details())
print('-----1-----')
acc1.addMoney(3000)
print('-----2-----')
acc2.sendMoney(acc1, 500)
print('-----3-----')
acc1.payBill(billers, 'Titas_2000', 'Desco_1200')
print('-----4-----')
acc3 = bKashAccount('017262', 'Mostakim', 500)
print(acc2.details())
print(acc3.details())
print('-----5-----')
acc1.sendMoney(acc3, 150)
print('-----6-----')
acc2.payBill(billers, 'BTCL_750')
acc3.payBill(billers, 'Dot Internet_1500')
print('-----7-----')
acc2.addMoney(5000)
acc3.addMoney(250)
print('-----8-----')
acc2.payBill(billers, 'BTCL_750')
print('-----9-----')
print(acc2.details())
print('-----10-----')
print(acc3.details())
```

Output:

```
Acc No: 019278, Name: Zafar
Balance: 0TK
-----1-----
Successfully added 3000Tk to your account
-----2-----
Money transfer is unsuccessful due to insufficient balance!
-----3-----
Your Titas bill payment is successful!
Current Balance: 1000TK
Desco bill payment is unsuccessful due to insufficient balance!
-----4-----
Acc No: 018903, Name: Abid
Balance: 300TK
Acc No: 017262, Name: Mostakim
Balance: 500TK
-----5-----
Successfully transferred money!
-----6-----
BTCL bill payment is unsuccessful due to insufficient balance!
Sorry, you can't pay your Dot Internet bill through bKash
-----7-----
Successfully added 5000Tk to your account
Successfully added 250Tk to your account
-----8-----
Your BTCL bill payment is successful!
Current Balance: 4550TK
-----9-----
Acc No: 018903, Name: Abid
Balance: 4550TK
-----10-----
Acc No: 017262, Name: Mostakim
Balance: 900TK
```