

Extra multiple choice to include multiple choice questions covering Object-Orientation and recursion. For all questions, unless otherwise specified assume that there are no syntax errors in any programs or program fragments. (You can find the **answers** in a different PDF file: **click on the link to the right of the link for this file**).

1. Given the class definition for 'Foo' which of the following is the correct way to access attribute 'num' inside 'fun'?

```
class Foo:
    num = 1
    def fun(self):
```

- a) num
- b) fun.num
- c) num.num
- d) self.num
- e) None of the above

2. Given the previous class definition which of the following is the correct way to display attribute 'num' inside of 'start'?

```
def main():
    aFoo = Foo()
```

- a) print(num)
- b) print(aFoo.num)
- c) print(num.num)
- d) print(main.num)
- e) None of the above

For Questions 3 – 8 you are to determine the output of the function. In all cases the fun is passed the constant '5' when it's first called.

- 3.

```
def fun1(x):
    print(x,end="")
    if(x < 8):
        fun1(x+1)
```

- a) 567
- b) 765

- c) 5678
- d) 8765
- e) The function calls are endless.
- f) There is no output

4.

```
def fun2(x):  
    if(x < 8):  
        print(x,end="")  
        fun2(x+1)
```

- a) 567
- b) 765
- c) 5678
- d) 8765
- e) The function calls are endless.
- f) There is no output

5.

```
def fun3(x):  
    if(x < 8):  
        fun3(x+1)  
        print(x,end="")
```

- a) 567
- b) 765
- c) 5678
- d) 56789
- e) The function calls are endless.
- f) There is no output.

6.

```
def fun4(x):  
    if(x < 8):  
        fun4(x+1)  
        return()  
        print(x,end="")
```

- a) 567
- b) 5678

- c) 6785
- d) 56789
- e) The function calls are endless.
- f) There is no output.

7.

```
def fun5(x):  
    if(x < 8):  
        fun5(x+1)  
    print(x,end="")
```

- a) 567
- b) 5678
- c) 6785
- d) 8765
- e) The function calls are endless.
- f) There is no output.

8.

```
def fun6(x):  
    print(x,end="")  
    if(x < 8):  
        fun6(x-1)
```

- a) 567
- b) 5678
- c) 6785
- d) 8765
- e) The function calls are endless.
- f) There is no output.

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