

“Classes and Objects”

PART I

1. _____ represents an entity in the real world with its identity and behaviour.

- a) A method
- b) An object
- c) A class
- d) An operator

2. _____ is used to create an object.

- a) class
- b) constructor
- c) User-defined functions
- d) In-built functions

3. What is the output of the following code?

class test:

```
def __init__(self,a="Hello World"):
    self.a=a
```

```
def display(self):
    print(self.a)
```

obj=test()

obj.display()

- a) The program has an error because constructor can't have default arguments
- b) Nothing is displayed
- c) “Hello World” is displayed
- d) The program has an error display function doesn't have parameters

4. What is setattr() used for?

- a) To access the attribute of the object

b) To set an attribute

c) To check if an attribute exists or not

d) To delete an attribute

5. What is getattr() used for?

a) To access the attribute of the object

b) To delete an attribute

c) To check if an attribute exists or not

d) To set an attribute

6. What is the output of the following code?

class change:

```
def __init__(self, x, y, z):
    self.a = x + y + z
```

x = change(1,2,3)

y = getattr(x, 'a')

setattr(x, 'a', y+1)

print(x.a)

a) 6

b) 7

c) Error

d) 0

7. What is the output of the following code?

class test:

```
def __init__(self,a):
    self.a=a
```

```
def display(self):
    print(self.a)
```

obj=test()

obj.display()

- a) Runs normally, doesn't display anything
- b) Displays 0, which is the automatic default value
- c) Error as one argument is required while creating the object
- d) Error as display function requires additional argument

8. Is the following piece of code correct?

```
>>> class A:
    def __init__(self,b):
        self.b=b
    def display(self):
        print(self.b)
```

```
>>> obj=A("Hello")
```

```
>>> del obj
```

- a) True
- b) False

9. What is the output of the following code?

```
class test:
    def __init__(self):
        self.variable = 'Old'
        self.Change(self.variable)
    def Change(self, var):
        var = 'New'
```

```
obj=test()
print(obj.variable)
```

- a) Error because function change can't be called in the __init__ function
- b) 'New' is printed
- c) 'Old' is printed
- d) Nothing is printed

10. What is Instantiation in terms of OOP terminology?

- a) Deleting an instance of class
- b) Modifying an instance of class
- c) Copying an instance of class
- d) Creating an instance of class

11. What is the output of the following code?

```
class fruits:
    def __init__(self, price):
        self.price = price
obj=fruits(50)

obj.quantity=10
obj.bags=2
print(obj.quantity+len(obj.__dict__))
```

- a) 12
- b) 52
- c) 13
- d) 60

12. What is the output of the following code?

```
class Demo:
    def __init__(self):
        pass

    def test(self):
        print(__name__)
```

- ```
obj = Demo()
obj.test()
```
- a) Exception is thrown
  - b) \_\_main\_\_
  - c) Demo
  - d) test

## PART II

1. The assignment of more than one function to a particular operator is

- a) Operator over-assignment
- b) Operator overriding
- c) Operator overloading
- d) Operator instance

2. Which piece of code creates an empty class?

a)  
class A:  
 return

b)  
class A:  
 pass

c)  
class A:

d) It is not possible to create an empty class.

3. Is the following piece of code valid?

```
class B(object):
 def first(self):
 print("First method called")
 def second():
 print("Second method called")
```

```
ob = B()
B.first(ob)
```

- a) It isn't as the object declaration isn't right
- b) It isn't as there isn't any `__init__` method for initializing class members

- c) Yes, this method of calling is called unbounded method call
- d) Yes, this method of calling is called bounded method call

4. What are the methods which begin and end with two underscore characters called?

- a) Special methods
- b) In-built methods
- c) User-defined methods
- d) Additional methods

5. Special methods need to be explicitly called during object creation. True or False?

- a) True
- b) False

6. What is the output of the following code?

```
>>> class demo():
 def __repr__(self):
 return '__repr__ built-in function called'
 def __str__(self):
 return '__str__ built-in function called'
```

```
>>> s=demo()
```

```
>>> s
```

- a) Error
- b) Nothing is printed
- c) `__str__` called
- d) `__repr__` called

7. What is the output of the following code?

```
>>> class demo():
 def __repr__(self):
 return '__repr__ built-in function called'
 def __str__(self):
 return '__str__ built-in function called'
```

```
>>> s=demo()
```

```
>>> print(s)
```

- a) \_\_str\_\_ called
- b) \_\_repr\_\_ called
- c) Error
- d) Nothing is printed

8. What is hasattr(obj,name) used for?

- a) To access the attribute of the object
- b) To delete an attribute
- c) To check if an attribute exists or not
- d) To set an attribute

9. What is the output of the following piece of code?

```
class stud:
```

```
 def __init__(self, roll_no, grade):
```

```
 self.roll_no = roll_no
```

```
 self.grade = grade
```

```
 def display (self):
```

```
 print("Roll no : ", self.roll_no, ", Grade: ", self.grade)
```

```
stud1 = stud(34, 'S')
```

```
stud1.age=7
```

```
print(hasattr(stud1, 'age'))
```

- a) Error as age isn't defined
- b) True
- c) False
- d) 7

10. What is delattr(obj,name) used for?

- a) To print deleted attribute
- b) To delete an attribute
- c) To check if an attribute is deleted or not
- d) To set an attribute

11. \_\_del\_\_ method is used to destroy instances of a class. True or False?

- a) True
- b) False

12. What is the output of the following piece of code?

```
class stud:
```

```
 """Base class for all students"""
```

```
 def __init__(self, roll_no, grade):
```

```
 self.roll_no = roll_no
```

```
 self.grade = grade
```

```
 def display (self):
```

```
 print("Roll no : ", self.roll_no, ", Grade: ", self.grade)
```

```
print(student.__doc__)
```

- a) Exception is thrown
- b) \_\_main\_\_
- c) Nothing is displayed
- d) Base class for all students

13. What does print(Test.\_\_name\_\_) display (assuming Test is the name of the class) ?

- a) ()
- b) Exception is thrown
- c) Test
- d) \_\_main\_\_