Homework 02

1. A data structure described as LIFO is actually a:

(a) list
(b) heap
(c) tree
(d) stack

2. If the class's constructor is declared as below, which one of the assignments is valid?

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

```
(a) object = Class(object)
(b) object = Class(self)
(c) object = Class
(d) object = Class()
```

3. If there is a superclass named A and a subclass named B, which one of the presented invocations should you put instead of a comment?

```
class A:
     def __init__(self):
          self.a = 1

class B:
     def __init__(self):
          # put selected line here
          self.a = 2
```

(a) __init__()

(b) A.__init__()
(c) A.__init__(self)
(d) A.__init__(1)

4. What will be the effect of running the following code?

```
class A:
     def __init__(self,v):
          self.__a = v + 1

a = A(0)
print(a.__a)
```

(a) it will print 0
(b) it will print 2
(c) it will print 1
(d) it will raise an AttributeError exception

5. What will be the output of the following code?

```
class A:
     def __init__(self,v = 1):
          self.v = v

def set(self,v):
     self.v = v
     return v

a = A()
print(a.set(a.v + 1))
```

(a) 3
(b) 0
(c) 1
(d) 2

6. What will be the output of the following code?

```
class A:
     X = 0
```

```
    def __init__(self,v = 0):
        self.Y = v
        A.X += v

a = A()
b = A(1)
c = A(2)
print(c.X)
```

(a) 0
(b) 2
(c) 3
(d) 1

7. What will be the output of the following code?

```
class A:
    A = 1

print(hasattr(A,'A'))
```

(a) 0
(b) False
(c) 1
(d) True

8. What will be the result of executing the following code?

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

a = A(1)
print(hasattr(a,'A'))
```

(a) it will print False
(b) it will print 1
(c) it will print True
(d) it will raise an exception

9. What will be the result of executing the following code?

```
class A:
     def __str__(self):
          return ‘a’

class B(A):
     def __str__(self):
          return ‘b’

class C(B):
     pass

o = C()
print(o)
```

(a) it will raise an exception
(b) it will print a
(c) it will print c
(d) it will print b

10. What will be the result of executing the following code?

```
class A:
     pass

class B(A):
     pass

class C(B):
     pass

print(issubclass(C,A))
```

(a) it will raise an exception
(b) it will print True
(c) it will print 1
(d) it will print False

11. What will be the result of executing the following code?

```
class A:
     def a(self):
          print('a')

class B:
     def a(self):
          print('b')

class C(B,A):
     def c(self):
          self.a()

o = C()
o.c()
```

(a) it will print c
(b) it will print a
(c) it will raise an exception
(d) it will print b

12. What will be the result of executing the following code?

```
class A:
     def __str__(self):
          return 'a'

class B(A):
     def __str__(self):
          return 'b'

class C(B):
     pass

o = C()
print(o)
```

(a) it will print b
(b) it will raise an exception
(c) it will print a
(d) it will print c

13. What will be the result of executing the following code?

```
class A:
     v = 2

class B(A):
     v = 1

class C(B):
     pass

o = C()
print(o.v)
```

(a) it will print an empty line
(b) it will print 2
(c) it will raise an exception
(d) it will print 1

14. What will be the result of executing the following code?

```
def f(x):
     try:
          x = x / x
     except:
          print(“a”,end=”)
     else:
          print(“b”,end=”)
     finally:
          print(“c”,end=”)

f(1)
f(0)
```

(a) it will print bcbc
(b) it will print bcac
(c) it will print acac
(d) it will raise an unhandled exception]

15. What will be the result of executing the following code?

```
try:
     raise Exception(1,2,3)
except Exception as e:
     print(len(e.args))
```

(a) it will print 2
(b) it will print 1
(c) it will raise an unhandled exception
(d) it will print 3

16. What will be the result of executing the following code?

```
class Ex(Exception):
     def __init__(self,msg):
          Exception.__init__(self,msg + msg)
          self.args = (msg,)

try:
     raise Ex('ex')
except Ex as e:
     print(e)
except Exception as e:
     print(e)
```

(a) it will raise an unhandled exception
(b) it will print an empty line
(c) it will print exex
(d) it will print ex

17. What will be the result of executing the following code?

```
class I:
     def __init__(self):
          self.s = 'abc'
          self.i = 0

     def __iter__(self):
          return self
```

```
    def __next__(self):
        if self.i == len(self.s):
            raise StopIteration
        v = self.s[self.i]
        self.i += 1
        return v


for x in I():
    print(x,end=”)
```

(a) it will print cba
(b) it will print 210
(c) it will print 012
(d) it will print abc

18. What will be the result of executing the following code?

```
def I():
    s = ‘abcdef’

    for c in s[::2]:
        yield c

for x in I():
    print(x,end=”)
```

(a) it will print an empty line
(b) it will print bdf
(c) it will print abcdef
(d) it will print ace

19. What will be the result of executing the following code?

```
def I(n):
    s = ‘+’
    for i in range(n):
        s += s
        yield s

for x in I(2):
print(x,end=”)
```

(a) it will print +
(b) it will print +++
(c) it will print ++++++
(d) it will print ++

20. What will be the result of executing the following code?

```
def o(p):
     def q():
          return '*' * p
     return q

r = o(1)
s = o(2)
print(r() + s())
```

(a) it will print *
**(b) it will print **
(c) it will print **
(d) it will print *

21. When a file is opened in read mode, it:

(a) it must exist (an exception will be raised otherwise)
(b) it cannot exist (it has to be created every time)
(c) it will be deleted if it exists
(d) it doesn't have to exist (it will be created if absent)

22. If you want to open a text file in append mode, you would use the following mode string:

(a) t+a
(b) at
(c) a+t
(d) at+

23. The sys.stdin stream is normally associated with a:

(a) null device
(b) keyboard
(c) printer
(d) screen

24. The strerror function comes from the OS module, and it's designed to:

(a) raise a string exception
(b) translate an error description from one language to another
(c) translate an error description into an error number
(d) translate an error number into an error description

25. If s is a stream opened in read mode, the following line

```
q = s.read(1)
```

will:

(a) read 1 buffer from the stream
(b) read 1 kilobyte from the stream
(c) read 1 character from the stream
(d) read 1 line from the stream

26. How does the readline() method react when the end-of-file occurs?

(a) it returns eof
(b) it returns -1
(c) it returns an empty string
(d) it raises an exception

27. The readlines() method returns a:

(a) list
(b) dictionary
(c) tuple
(d) string

28. Assuming that the open() invocation has gone successfully, the following snippet will:

```
for x in open('file','rt'):
     print(x)
```

(a) read the file line by line
(b) read the file character by character
(c) cause an exception
(d) read the whole file at once

29. The byte array class can create objects which are designed to:

(a) build arrays 1 byte in size
(b) convert tuples into lists
(c) convert lists into tuples
(d) store amorphic data organized in bytes

30. If you want to fill a byte array with data read in from a stream, you use the:

(a) read() method
(b) readinto() method
(c) readfrom() method
(d) readbytes() method