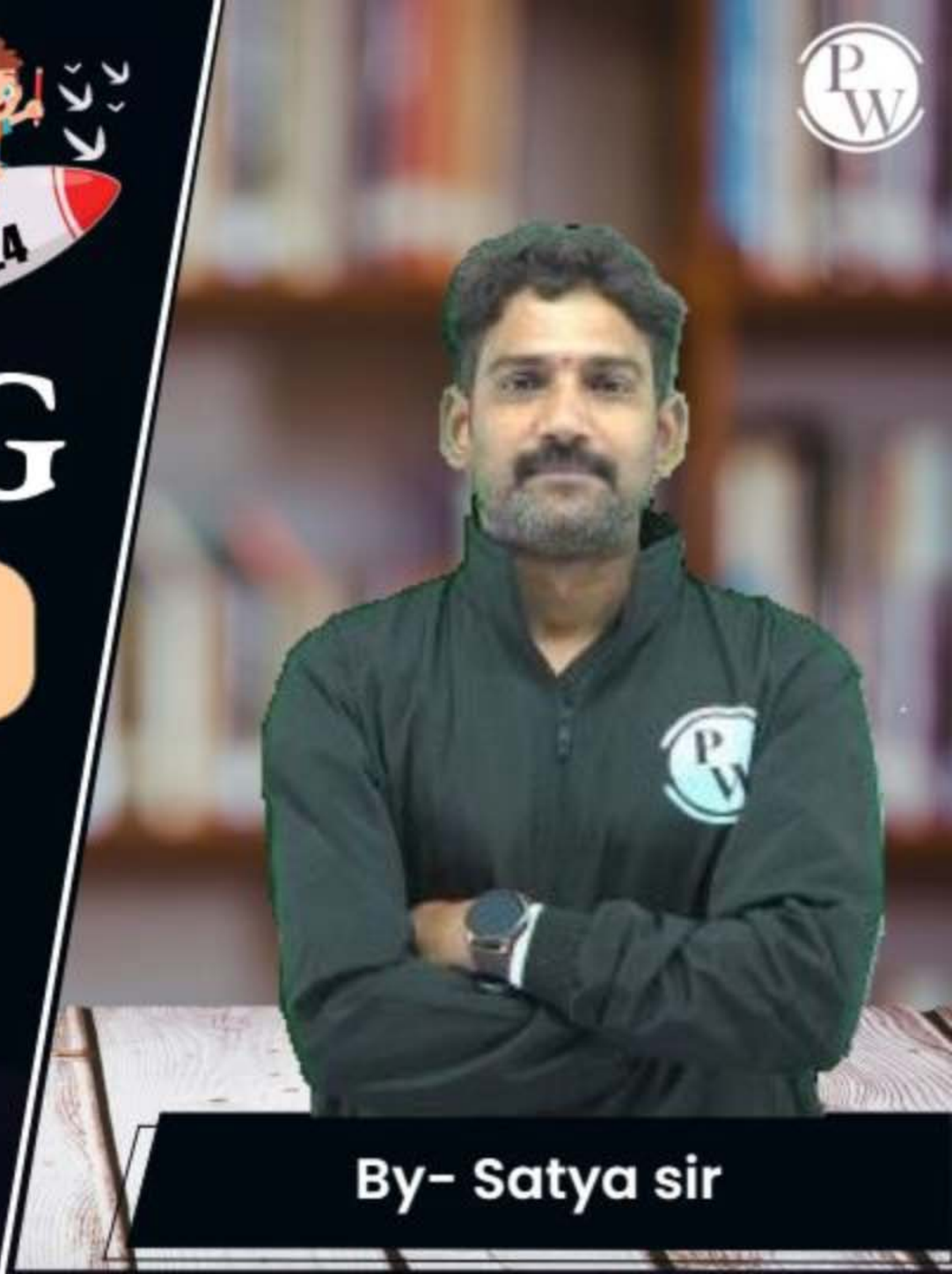
CS & IT ENGINEERING

PYTHON

For Data Science

Classes and Modules

DPP 01 Discussion Notes



By- Satya sir

[MCQ]

#Q. Which of the below container is used to encapsulate multiple dictionaries into single list of dictionaries?

A defaultdict

B Deque

C ChainMap ✓

D Ordereddict

[MCQ]

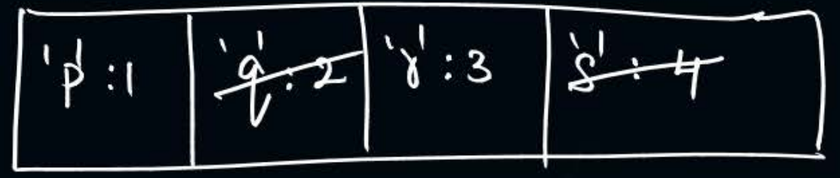
#Q. The output of below Python Code Segment is _____

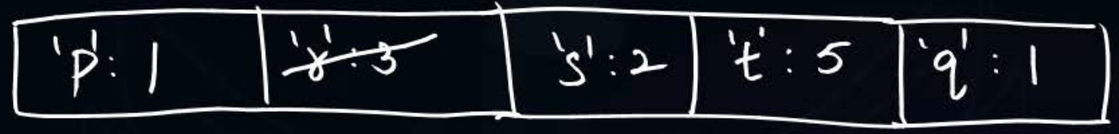
~~import OrderedDict~~ d = OrderedDict()

d['p'] = 1
d['q'] = 2
d['r'] = 3
d['s'] = 4
d.pop('q')
d.pop('s')
for key, value in d.items():
print(key, value, end=' ')

d['s'] = 2
d['t'] = 5
d.pop('r')
d['q'] = 1

~~from collections~~
from collections import OrderedDict





A p 1 s 4 t 5 q 1

B p 1 s 2 t 5 q 1 ✓

C p 1 s 2 t 5 q 2

D p 1 s 4 t 5 q 2

[MCQ]

#Q. Which of the below class can be used to implement both stack and queue?

A chainMap

B lifoQueue

C Ordereddict

D deque ✓

(double ended Queue)

- Insert, Delete from same end : LIFO
- Insert, Delete from different ends : FIFO

[MCQ]

4, 2, 1, 3

#Q. Arrange the below in the order of Subset to Superset relativity.

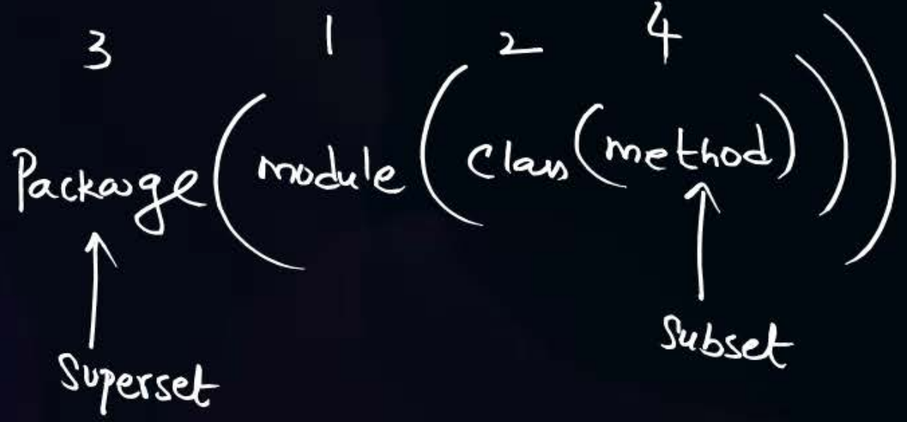
1. Module 2. Class 3. Package 4. Method

A 3, 2, 1, 4

B 4, 2, 3, 1

C ✓ 4, 2, 1, 3

D 3, 1, 2, 4



[MSQ]

#Q. Identify True Statement(s) from below.

A Arrays as Lists are Slower Compared to Arrays as numpy object (Contiguous space) True

C defaultdict (Ordereddict) preserve the order of insertion of elements FALSE (not)

B Dictionaries if implemented using defaultdict class, it never raises a Key Error True

D A ChainMap is a class that accumulates multiple dictionaries into a single list. True

ANS: A, C, D

[NAT]

#Q. The return value of below function fun(5, 1, 9) is _____

```
def fun(x,y,z):
    if x==y or y==z or x==z:
        return x-y+z
    elif x>y:
        return x+fun(x-1,y,z+2)
    elif y>z:
        return y+fun(x+1,y-1,z)
    else:
        return z+fun(x,y,z-1)
```

x y z

5 + fun(4, 1, 11)

4 + fun(3, 1, 13)

3 + fun(2, 1, 15)

2 + fun(1, 1, 17)

return 1-1+17

⇒ return 17

2 + 17 = 19

19 + 3 = 22

22 + 4 = 26

26 + 5 = 31

ANS: 31

[MCQ]

#Q. Which of the below statements raise a syntax error?

A ✓ max = lambda a, b : x if(a > b) raise Syntax Error because No else

C square = lambda x : x*x if(x > 0) else None Valid

B calc = lambda num: "Even number" if num % 2 == 0 else "Odd number" Valid

D result = lambda a,b=4,c=2: a+b+c Valid

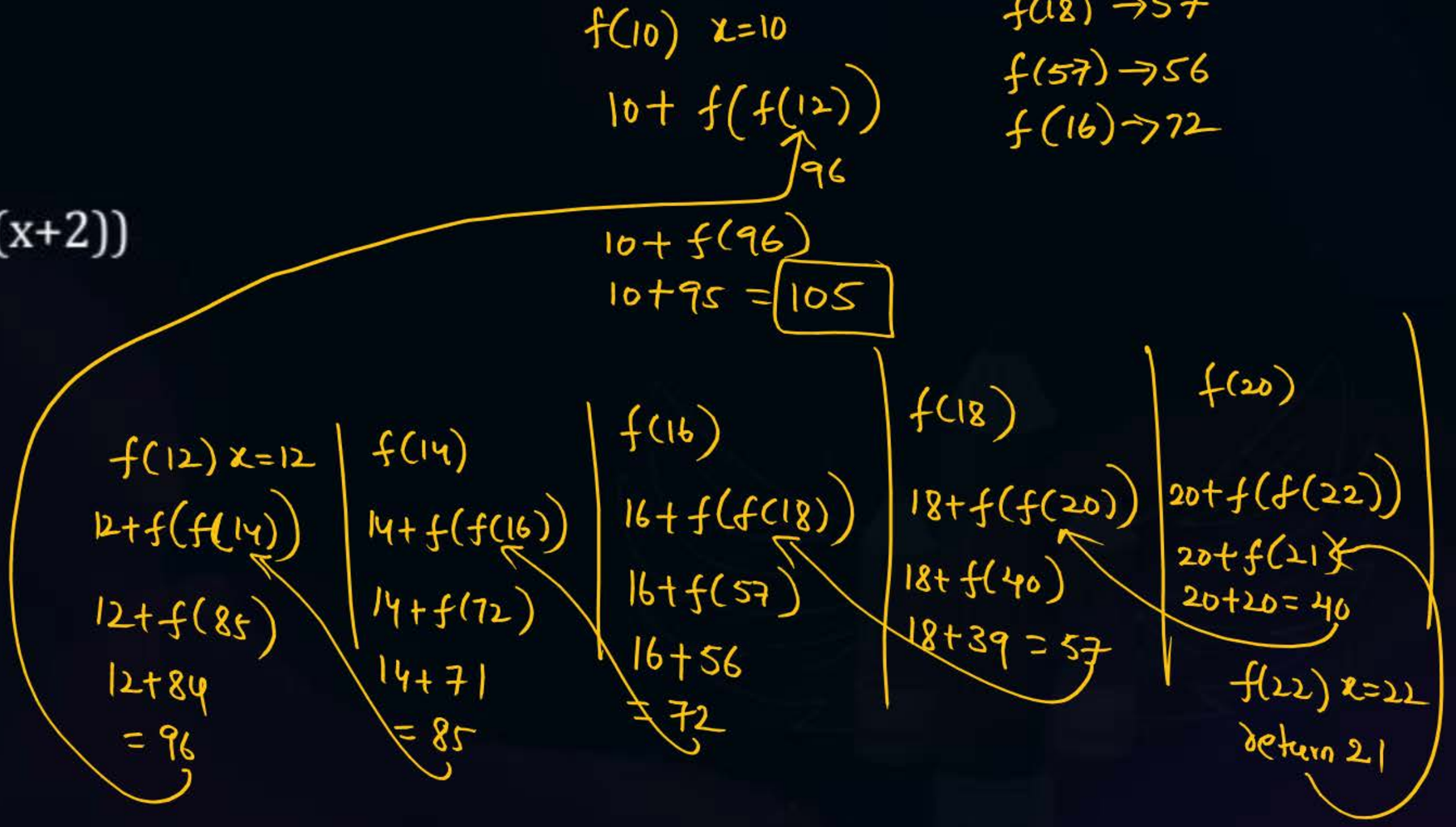
default/Keyword arg.

[NAT]

#Q. The output of below code segment is 105

```
def f(x):
    if x>20:
        return x-1
    else:
        return x+f(f(x+2))
print(f(10))
```

f(22) return 21
f(21) return 20
f(20) return 40
f(18) → 57
f(57) → 56
f(16) → 72



THANK - YOU