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INDIAN SCHOOL MUSCAT SECOND PERIODIC ASSESSMENT

INFORMATICS PRACTICES

CLASS: XI

Sub. Code: 065

Time Allotted: 50 mts.

16.01.2020

Max. Marks: 20

GENERAL INSTRUCTIONS:

- Answer all the questions.
- Programming Language is Python.

1. What is the result of the following code? 1

```
D=dict()
D['left']='<'
D['right']='>'
print(D['left'] and D['right'])
```
2. Predict the output of the following code: 2

```
d1 = {10:"One",20:"Two",30:"Three"}
for x in d1.keys():
    print(d1[x]*3, end='$')
print(2 in d1)
```
3. Given the following dictionary 2

```
City={1:"Nagpur",2:"Mumbai",3:"Calicut",4:"Delhi"}
```

Write a Python code to perform the following:

 - (a) To add "Pune" as fifth city to the dictionary
 - (b) To change the third city as "Agra"
 - (c) To remove the second city "Mumbai"
 - (d) To display the fourth city
4. Name the NumPy array attribute which gives the size of each array element in bytes. 1
5. Write a Python code to create a numpy array S of size 20 with all elements as one. 1
Assume that the numpy library is imported as np.
6. Give any one difference between a list and a NumPy array. 1
7. An ndarray S contains the following data : 2

```
S = [[78, 34, 90, 23], [67, 56, 83, 3], [21, 94, 51, 8]]
```

What will be the output of the following statements?

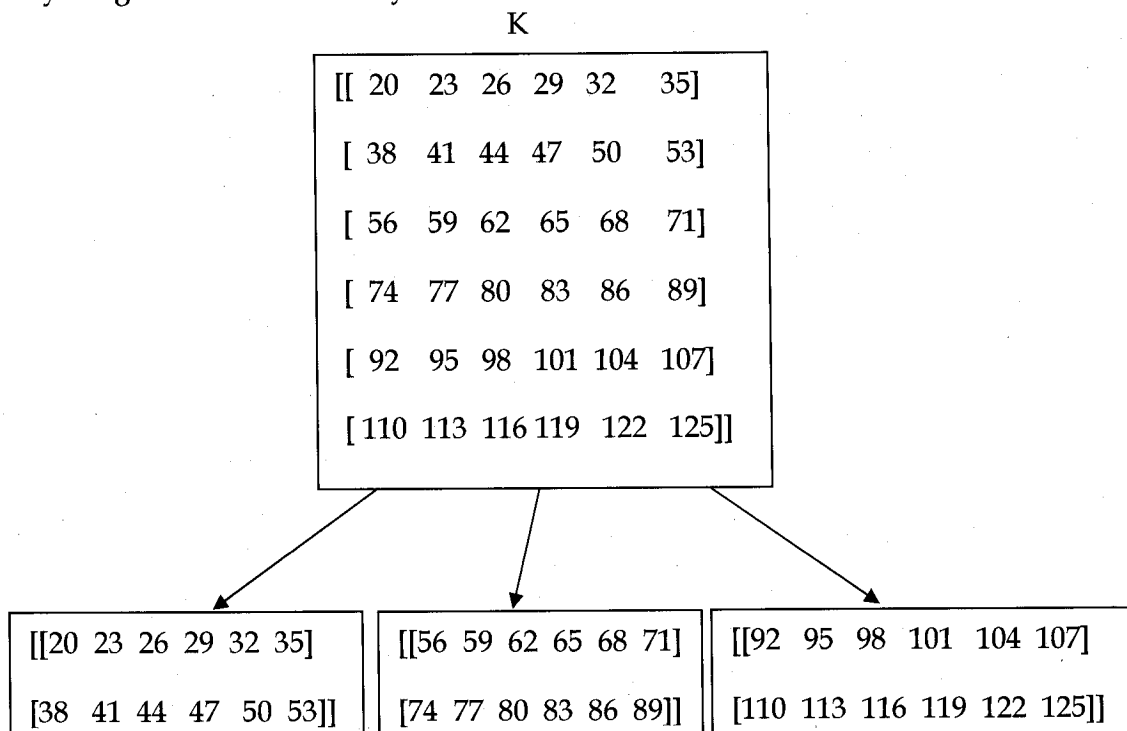
(a) print(S[:2, 1]) (b) print(S[:, 1:2]) (c) print(S[2:0:-2, 2]) (d) print(S[::-1, ::2])

8. Write a Python Program to create a numpy array A=[[1,2,3], [4,5,6], [7,8,9]] and display the elements of A which are divisible by 4. 2

9. Predict the output of the following code: 2

```
import numpy as np
T=np.array([[34,35,36], [82,83,84]])
R=np.array([[24,25,26],[17,18,19]])
E=np.concatenate([T,R], axis=1)
print(E)
W=np.vstack([T,R])
print(W)
```

10. Write a Python code to split the following array K as depicted below. Give any two ways to get the resultant arrays. 2



11. Write a Python Program to create two numpy arrays, G = [[34, 67], [89, 23]] and H = [[90, 12], [48, 79]] and perform the following operations : 4
- Display the sum of the elements of each row of G.
 - Divide the array H by 5 and display the result
 - Display the remainder dividing the array H by G
 - Display the transpose of G

End of the Question Paper