TASK 8 [PYTHON - MEDICORE LVL]

OUTPUT:

QUESTION-1

```
import numpy as np
n=[]
a=np.array([0, 0, 0, 0, 0])
b=int(input("Enter First Number :"))
c=int(input("Enter Last Number :"))
for i in range(b, c+1):
      n.append(i)
      if i!=c:
        for j in a:
          n.append(j)

n=np.array(n)
print(np.float_(n))
```

```
Python 3.10.2 (v3.10.2:a58ebcc701, Jan 13 2022, 14:50:16) [Clang 13.0.0 (clang-1300.0.29.30)]
on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============== RESTART: /Users/raaghavikr/Documents/Question 1.py ==============
Enter First Number :10
Enter Last Number :14
[10.  0.  0.  0.  0.  0. 11.  0.  0.  0.  0.  0. 12.  0.  0.  0.  0.  0.
 13.  0.  0.  0.  0.  0. 14.]
>>>
```

QUESTION-2

```
import numpy as np
a=np.array([1, 0, 0, 0, 1, 0])
print("First array :", a)
b=np.array([0, 0, 1, 1, 0, 1])
print("Second Array :", b)
c= a==b
for i in range(0,a.__len__()):
    if a[i]==b[i]:
        c=True
    else:
        c=False
        break
print(c)
```

```
Python 3.10.2 (v3.10.2:a58ebcc701, Jan 13 2022, 14:50:16) [Clang 13.0.0 (clang-1300.0.29.30)]
on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============== RESTART: /Users/raaghavikr/Documents/Question 2.py ==============
First array : [1 0 0 0 1 0]
Second Array : [0 0 1 1 0 1]
False
>>>
```

QUESTION-3

```
import numpy as np
print(0 * np.nan)
print(np.nan != np.nan)
print(np.inf > np.nan)
print(np.nan - np.nan)
print(0.3 == 3 * 0.1)
```

```
Python 3.10.2 (v3.10.2:a58ebcc701, Jan 13 2022, 14:50:16) [Clang 13.0.0 (clang-1300.0.29.30)]
on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============== RESTART: /Users/raaghavikr/Documents/Question 3.py ==============
nan
True
False
nan
False
>>>
```

QUESTION-4

```
import pandas as pd
a=pd.Series(['amrita', 'school', 'of', 'engineering', 'chennai', 'campus'])
for i in a:
    print(i.capitalize(), end=" ")
```

```
Python 3.10.2 (v3.10.2:a58ebcc701, Jan 13 2022, 14:50:16) [Clang 13.0.0 (clang-1300.0.29.30)]
on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============== RESTART: /Users/raaghavikr/Documents/Question 4.py ==============
Amrita School Of Engineering Chennai Campus
>>>
```

QUESTION-5(1)

```
# addition of 2 numpy arrays
import numpy as np
a=np.array([1,0,1,0,1])
b=np.array([1,2,3,4,5])
print("The product of 2 numpy arrays is :", a*b)
```

```
Python 3.10.2 (v3.10.2:a58ebcc701, Jan 13 2022, 14:50:16) [Clang 13.0.0 (clang-1300.0.29.30)]
on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============ RESTART: /Users/raaghavikr/Documents/Question 5(2).py ============
The product of 2 numpy arrays is : [1 0 3 0 5]
>>>
```

QUESTION-5(2)

```
import numpy as np
a=np.identity(3,dtype=int)
print("The identity matrix is :")
print(a)
```

```
Python 3.10.2 (v3.10.2:a58ebcc701, Jan 13 2022, 14:50:16) [Clang 13.0.0 (clang-1300.0.29.30)]
on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
================== RESTART: /Users/raaghavikr/Documents/ide.py ==================
The identity matrix is :
[[1 0 0]
 [0 1 0]
 [0 0 1]]
>>>
```