COGNIZANCE

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QN 1

task8.py

```
import numpy as np
x = np.array([10,11,12,13,14])
print(x)
y = 5
z = np.zeros(len(x) + (len(x)-1)*(y))
z[::y+1] = x
print(np.floor(z))
```

Unnamed | task8

```
D:\SEM1\Cognizance\moulika\venv\Scripts\python.exe D:/SEM1/Cognizance/moulika/venv/task8.py
[10 11 12 13 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.]

Process finished with exit code 0
```

QN 2

task8.py

```
import numpy as np
x=input("Enter The First Array :").split()
x=np.array(list(map(int,x)))
y=input("Enter The Second Array :").split()
y=np.array(list(map(int,y)))
comparison = (x == y)
Condition= comparison.all()
if(Condition is True):
    print(True)
else:
    print(False)
```

if (Condition is True)

Unnamed | task8

```
D:\SEM1\Cognizance\moulika\venv\Scripts\python.exe D:/SEM1/Cognizance/moulika/venv/task8.py
Enter The First Array :1 1 1 1
Enter The Second Array :1 0 0 1
False

Process finished with exit code 0
```

QN 3

task8.py

```
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)
```

Unnamed | task8

```
D:\SEM1\Cognizance\moulika\venv\Scripts\python.exe D:/SEM1/Cognizance/moulika/venv/task8.py
nan
True
False
nan
False

Process finished with exit code 0
```

QN 4

task8.py

```
import pandas as pd
result=''
x=int(input("Enter The Length Of The Array:"))
y=[input("Enter The Element:") for i in range(x)]
z=pd.Series(y)
for i in range(len(y)):
    result+=(" "+z[i])
print(result.title())
if x==y:
    print("True")
```

for i in range(len(y))

Unnamed | task8

```
D:\SEM1\Cognizance\moulika\venv\Scripts\python.exe D:/SEM1/Cognizance/moulika/venv/task8.py
Enter The Length Of The Array:3
Enter The Element:amrita
Enter The Element:vishwa
Enter The Element:vidhyapeetam
 Amrita Vishwa Vidhyapeetam

Process finished with exit code 0
```

QN 5 PART(1)

task8.py

```
import numpy as np
x = ([1, 6, 8],[2, 7, 8],[1, 0, 5])
y = ([12, 61, 6],[7, 5, 9],[7, 2, 5])
z = np.dot(x,y)
print(z)
```

Unnamed | task8

```
D:\SEM1\Cognizance\moulika\venv\Scripts\python.exe D:/SEM1/Cognizance/moulika/venv/task8.py
[[110 107 100]
 [129 173 115]
 [ 47  71  31]]

Process finished with exit code 0
```

QN 5 PART(2))

ask8.py

```
import numpy as np
x = np.identity(3)
print("\nMatrix a : \n", x)
```

Unnamed | task8

```
D:\SEM1\Cognizance\moulika\venv\Scripts\python.exe D:/SEM1/Cognizance/moulika/venv/task8.py

Matrix a :
 [[1. 0. 0.]
 [0. 1. 0.]
 [0. 0. 1.]]

Process finished with exit code 0
```