

Q1.

```
import numpy as np
```

```
arr=np.array([[1,2,3],[4,5,6],[7,8,9]])
```

```
print(arr*2,end="\n")
```

```
print(arr+5,end="\n")
```

```
print(arr**2,end="\n")
```

```
print(arr)
```

Q2.

```
import numpy as np
```

```
arr=np.array([[1,2,3],[4,5,6],[7,8,9]])
```

```
print(arr[0,:],end="\n")
```

```
print(arr[:,2],end="\n")
```

```
print(arr[1:,1:])
```

Q3.

```
import pandas as pd
```

```
data={"Name":["Arav","Aryan","Raj","Simran","Rajesh","Kunal","Karan","Rahul","Rohan","Hina"],  
      "Marks":[1,2,3,4,5,6,7,8,9,10]}
```

```
df=pd.DataFrame(data)
```

```
print(df)
```

Q4.

```
import pandas as pd
```

```
data={"Employee_name":["Arav","Aryan","Raj","Simran","Rajesh"],  
      "Income":[12300,45356,45453,87655,76546]}
```

```
df=pd.DataFrame(data,index=['a','b','c','d','e'])
```

```
print(df)
```

Q5.

```
import matplotlib.pyplot as plt
```

```
x = ['A', 'B', 'C', 'D', 'E']
```

```
y = [10, 20, 15, 25, 30]
```

```
plt.bar(x,y,color='red')
```

```
plt.show()
```