Section-5

(2) Transpose matrics :-

if you change the raws of a matrix with the column of the same matrix, itis known as transpose of a matrix. itis denoted as x for example :- the element at ith raw, jth column in x will be placed at jth raw and ith column in x'.

Lets take a matrix x, having the following elements :-

```
x = [[1,2],
     [4,5],
     [7,]]
```

Seeing example :-

```
x =[[1,2]
    [4,5],
    [7,8]]

result =[[0,0,0],
         [0,0,0]]
# iterate through raws
for i in range(len(x)):
 for j in range(len(x[0])):
  result[j][i] = x[i][j]
for r in result
  print(r)
```

```
>>> x = [[1,2],
         [4,5],
         [7,8]]
>>> result = [[0,0,0],
              [0,0,0]]
>>> # iterate through rows
>>> for i in range(len(x)):-
        for j in range(len(x[0])):-
            result[j][i] = x[i][j]

>>> for r in result:-
        print(r)
[1, 4, 7]
[2, 5, 8]
>>>
```