1 PYTHON MODULE

1.1 Exercise 1

Determine the output of the three following blocks of Python code. Justify your answer with a short explanation.

```python
[ ]: def bc(n, k):
    C = [0 for x in range(k+1)]
    C[0] = 1
    for i in range(n+1):
        for j in range(min(i, k), 0, -1):
            C[j] = C[j] + C[j-1]
    return C[k]
bc(4,2)

[ ]: list = ['Eleven', 'Seven', 'One', 'Four']
list.sort(key = lambda x: len(x))
print(list)

[ ]: import numpy as np
A = [1, 3]
B = [2, 5]
M = np.array([A,B])
print(M.T)
```

1.2 Exercise 2

Describe at least two ensemble methods for machine learning, and explain how they address the bias-variance trade off.