Numpy, Pandas, and Visualization Interview Questions

1. Name a few use cases where Numpy is useful.
2. How are Numpy arrays better than lists in Python?
3. Print the numpy version and configuration.
4. How to convert a float (32 bits) array into an integer (32 bits) in place ?
5. Create a null vector of size 10 but the fifth value being as 1 using numpy.
6. Consider the vector [1, 2, 3, 4, 5], how to build a new vector with 3 consecutive zeros interleaved between each value?
7. How to convert data type of an array in Numpy
8. What is the difference between Copy and View in Numpy?
9. Create a 3*3 identity matrix.
10. Consider an array of dimension (5,5,3), how to multiply it by an array with dimension (5,5)
11. What are Python Pandas used for?
12. What is a Series in Pandas?
13. Mention different types of data structure in Pandas?
14. Explain Reindexing in Pandas?
15. What are the key features of Pandas Library?
16. How can we create a copy of the Series in Pandas?
17. What is the Time Series in Pandas?
18. What is a dataframe in Pandas?
19. What are the different ways in which a dataframe can be created in Pandas?
20. How can you convert a numpy array into a dataframe of given shape?
21. What does a reshape() function return when a NumPy array is passed to it?
22. You are given a list of integers, X. Write a program to perform the following tasks:
    a) Filter the Even numbers from the Input list X.
    b) Return the sum of the filtered list.
    Sample Input 6 8 5 6 9 8 2
    Output 24
23. What is the type of the numpy array A shown below? A = np.full((2, 2), 3.1)
24. Write a code to get the 1st, 5th, and 8th element of the array shown below.
sample_array = np.array([10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20])
25. Write a output to given code –
ranks = pd.Series([2, 3, 4, 5], index=['tom', 'john', 'sam', 'seny'])
ranks[2]