1.) What makes NumPy.shape() different from NumPy.size()?

- Numpy.shape () relates to the size of the dimensions of an N-dimensional array. Whereas, Numpy.size() relates to the amount or count of the elements that are contained in the array.
- For example (5,4). NumPy.size() will give us how many elements are present in total.

2.) In NumPy, describe the idea of broadcasting

- The term broadcasting refers to the ability of NumPy to treat arrays of different shapes during arithmetic operations. Arithmetic operations on arrays are usually done on corresponding elements. If two arrays are of exactly the same shape, then these operations are smoothly performed.

3.) What makes Python better than other libraries for numerical computation?

- Numerical Python has a fixed-size,
  homogeneous (fixed-type), multi-dimensional array type and lots of functions for various array operations. The result is a dynamically typed environment for array computing similar to basic Matlab.
- We can use a lot of numerical libraries which can solve any mathematical problem
- Also Python can solve any special numerical modules be used to solve numerical problems as well.

4.) How does NumPy deal with files?

- NumPy introduces a simple file format for nd-array objects. This . npy file stores data,shape, dtype and other information required to reconstruct the ndarray in a disk file such that the array is correctly retrieved even if the file is on another machine with different architecture

5.) Mention the importance of NumPy.empty().

- The empty() function is used to create a new array of given shape and type, without initializing entries. Shape of the empty array. e.g., (2, 3) or 2. Desired output data-type for the array, e.g, numpy. int8