Chapter:9 Numpy Basics

Q1. NumPy stands for_____

(a) Numbering Python
(b) Number Pytho
(c) Numerical Python
(d) None

Q2. Numpy was developed by_____

(a) Guido van Rosum
(b) Travis Oliphant
(c) Wes McKinney
(d) Jim Hugunin

Q3. _____helps to check the data type of an array.

(a) arraydtype()
(b) arr.dtype()
(c) dtype.arr()
(d) None

Q4. Ndarray is also known as the ____array.

(a) Array (b) alias
(c)variable (d) None

Q5. Shape() function in Numpy array is used to _____.

(a)Find the shape of the array
(b) change the shape of the array
(c) display elements
(d) None

Q6. Which of the following keyword is used to access the numpy module in python?

(a) Form (b) access
(b) import (d)none

Q7. _____ create an uninitialized array of specified shape and dtype?

(a)full (b)empty
(c)initiate (d)none

Q8. Npeye() is used for creating

(a) Identify matrix
(b) upper triangle matrix
(c) lower triangle matrix
(d) none

Q9. _____ will be the output of the following Python code.

```
import numpy as np
a = np.array([1,2,3,5,8])
a=a+1
print(a[1])
```

(a) 3 (b) 4

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(c) 5 (d) 2

Q 10 _____is the use of the zero() function in Numpy array in python.

(a) 0 (b) 1

(c) both a and b (d) none

Q 11 What is the output of the following program in python?

```
import numpy as np
a = np.array([1,2,3,5,8])
b = np.array([0,3,4,2,1])
c = a+b
c = c*a
print(c[2])
```

(a) 21 (b) 22

(c) 20 (d) None

Q 12 Numpy arrays can be _____

(a) Indexed (b) Sliced

(c) Iterated (d) All of the above

Q 13 Observe the following code and Identify what will be the outcome

```
import numpy as np
a=np.array([1,2,3,4,5,6])
print(a)
```

(a) [1 2 3 4 5] (b) [1 2 3 4 5 6]

(c) [0 1 2 3 4 5 6] (d) None

Q 14. What will be the output of the following code?

```
import numpy as np
print(np.maximum([2,3,4],[1,5,2]))
```

(a) [1 5 2] (b) [1 5 4]

(b) [2 3 4] (d) [2 5 4]

Q 15, What is the output of the following code?

```
import numpy as np
y=np.array([11,12,13,14],[32,33,34,35]))
print(y.ndim)
```

(a) 1 (b) 2

(c) 3 (d) 0

Q16.What is NumPy primarily used for?

A) Web development

B) Numerical computing

C) Data visualization

D) Machine learning

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Q17. How can you import NumPy in a Python script?

A) import numpy

B) import np

C) import numpy as np

D) from numpy import *

Q18. Which of the following data structure is the primary building block of NumPy?

A) List

B) Tuple

C) Dictionary

D) Array

Q19.What method is used to create a NumPy array from a Python list?

A) numpy.array()

B) numpy.array([])

C) np.array()

D) np.array([])

Q20. Which attribute of a NumPy array returns the shape (dimensionality) of the array?

A) shape

B) dimension

C) size

D) ndim

Q21. Which operation is supported by NumPy arrays for element-wise arithmetic?

A) Matrix multiplication

B) Dot product

C) Element-wise addition

D) Cross product

Q22. How do you reshape a NumPy array?

A) Using the resize() method

B) Using the reshape() method

C) Using the rearrange() method

D) Using the resize() function

Q23. What will be the output of the following python code.

```
import numpy as np
a=np.array([1,2,3,5,8])
print(a.ndim)
```

(a) 1 (b)4

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(c) 4 (d) none

Q24. **. What will be the output of the following python code.**

```
import numpy as np
a=np.array([[1,2,3],[0,1,4]])
print(a.size)
```

(a) 6 (b) 4

(c) 7 (d) 8

Q25 **. What will be the output of the following python code.**

```
import numpy as np
a=np.array([[1,2,3],[4,5,6]])
print(a.shape)
```

(a) (3,2) (b) (2,3)

(c) (3,3) (d) None

Q26. To create sequence of numbers, Numpy provides a function ____al=nalogous to range that arrays instead of lists.

(a) arange (b) aspace

(c)aline (d) all of the above

Q27. How can we convert the Numpy array to the list in python?

(a) List(array) (b)list.array

(c)array.list (d) None

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