Numpy Test

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Q1. NumPY stands for:

A) Numerical Python

Q2. What is the correct syntax to create a NumPy array?

B) np.array([1, 2, 3, 4, 5])

Q3. Which of the following arrays is a two-dimensional (2-D) array?

A) [[1, 2, 3], [4, 5, 6]]

Q4. What is the correct syntax to check the number of dimensions in an array?

B) arr.ndim

Q5. What is the correct syntax to print the first item of an array?

B) print(myArr[0])

Q6. What is the correct syntax to print the number 8 from the array below?

arr = np.array([[1, 2, 3, 4, 5], [6, 7, 8, 9, 10]])

B) print(arr[1, 2])

Q7. What is the correct syntax to print the number [3, 4, 5] from the array below?

arr = np.array([1, 2, 3, 4, 5, 6, 7])

A) print(arr[2:6])

Q8. Which syntax would print the last 4 numbers from the array below?

arr = np.array([1, 2, 3, 4, 5, 6, 7])

C) print(arr[4:])

Q9. Which syntax would print every other item from the array below?

arr = np.array([1, 2, 3, 4, 5, 6, 7])

B) print(arr[::2])

Q10. What is the correct syntax to check the data type of an array?

A) arr.dtype

Q11. What is the correct syntax to create an array of type float?

C) arr = np.array([1, 2, 3, 4], dtype=np.float)

Q12. Only one of the following statements is true when it comes to Views in NumPy, which one?

B) The view SHOULD BE affected by the changes made to the original array.

Q13. Only one of the following statements is true when it comes to Copies in NumPy, which one?

C) The copy SHOULD NOT be affected by the changes made to the original array.

Q14. In NumPy, what does the SHAPE of an array mean?

C) The shape is the number of elements in each dimension.

Q15. What is the correct syntax to return the shape of an array?

A) arr.shape

Q16. What is a correct method to join two or more arrays?
A) Concatenate()
Q17. What is a correct method to split arrays?
A) array_split()
Q18. What is a correct method to search for a certain value in an array?
A) where()
Q19. What is the correct syntax to return the index of all items that have the value 4 from the array below
?
arr = np.array([1, 4, 3, 4, 5, 4, 4])
A) np.where(arr==4)
Q20. What is a correct method to sort the elements of an array?
C) sort()
Q21. When using the NumPy random module, how can you return a random number from 0 to 1?
A) np.random.rand()
Q21. When using the NumPy random module, how can you return a Normal Data Distribution with 1000 n
umbers, concentrated around the number 50, with a standard deviation of 0.2?
B) random.normal(size=1000, loc=50, scale=0.2)
Q22. What is a correct syntax to mathematically add the numbers of arr1 to the numbers of arr2?
B) np.add(arr1, arr2)
Q23. What is a correct syntax to subtract the numbers from arr1 with the numbers from arr2?
D) np.subtract(arr1, arr2)
Q24. What is a correct method to round decimals in NumPy?
D) np.around()
Q25. What would be the answer of this cumulative summation in NumPy?
arr = np.array([1, 2, 3])
print(np.cumsum(arr))
B) [1 3 6]
Q26. Which function is a function to create a NumPy array?
D) All of the above (empty(), array(), ones())
Q27. What is the output of the code np.arange(2, 8)?
B) array([2, 3, 4, 5, 6, 7])
Q28. Find the output of the code:
a = np.array([[[1, 2, 3], [4, 5, 6]]])
print(a.ndim)
C) 3

Q29. What does the function itemsize() return?

C) It returns the byte size of each element of the array.

Q30. Find the output of the code:

arr = np.array([[1, 2, 3], [4, 5, 6]])

print(arr[1, 2])

A) 6

Q31. What is the output of the code np.linspace(1, 5, 5)?

B) array([1, 2, 3, 4, 5])

Q32. Which of the following code gives an error?

B) a = np.array([(1, 2, 3), (4, 5, 6)]); a.reshape(2, 4)

Q33. What is the output of the code print(np.zeros(5).dtype)?

D) float64

Q34. Which of the following is not true about the identity matrix?

B) It contains 1s in all the diagonals

Q35. What is the output of the code np.array([[1, 2, 3], [4, 5, 6]]).ravel()?

A) array([1, 2, 3, 4, 5, 6])

Q36. Which of the following will give the output as array([[1, 2, 3, 1, 2, 3], [4, 5, 6, 4, 5, 6]])?

B) arr = np.array([[1, 2, 3], [4, 5, 6]]); np.hstack((arr, arr))

Q37. Which of the following functions is used to create an array containing a constant value?

C) full()

Q38. Which of the following codes give an error?

D) All the above

Q39. Which of the following is the correct way to transpose of matrix A?

C) A.T

Q40. What is the output of the code snippet?

B) 108

Q41. What does the size attribute in NumPy use to find?

A) number of items

Q42. What is the output of the code snippet?

A) 8

Q43. What method is used for changing the shape of NumPy arrays?

D) reshape()

Q44. What is the purpose of the zero() function?

C) To create a matrix with all elements as 0

Q45. What is the output of the code snippet?

D) [[[1]], [[2]], [[3]], [[4]], [[5]], [[6]], [[7]], [[8]], [[9]], [[10]], [[11]], [[12]]]

Q46. NumPy arrays can be ___.

D) All of the mentioned above

Q47. Observe the following code and identify what will be the outcome?

A) array([[0, 2], [1, 3]])

Q48. Observe the following code and identify what will be the outcome?

A) [[[10]] [[20]] [[30]] [[40]]]

Q49. The most important object defined in NumPy is an N-dimensional array type called?

A) ndarray

Q50. If a dimension is given as __ in a reshaping operation, the other dimensions are automatically calcul
ated.

C) Negative one