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Explanations

50	**6**	**12**
Questions	Correct Answers	% Correct Answers

1. The {_____} function returns its argument with a modified shape, whereas the _____ method modifies the array itself.

○ reshape; resize

○ resize; reshape

○ reshape2; resize

○ resize2; reshape2

Explanations:

The reshape function returns its argument with a modified shape, whereas the resize method modifies the array itself.

2. Which of the following functions helps create a new array object that looks at the same data?

○ view

○ copy

○ paste

○ duplicate

Explanations:

The copy function is used to create a new object that looks at the same data as the original array object.

3. Which of the following statements limits both x and y axes to the interval [0, 6]?

○ plt.xlim(0, 6)

○ plt.ylim(0, 6)

○ plt.xylim(0, 6)

○ plt.axis([0, 6, 0, 6])

Explanations:

plt.axis([0, 6, 0, 6]) statement limits both x and y axes to the interval [0, 6].

---

4. In NumPy, what does the shape (2,3,2) indicate?

○ 2 rows, 3 columns, 2 ranks

○ 2 rows, 3 ranks, 2 columns

◉ 2 rows, 3 columns, 2 elements

○ 2 rows, 3 elements, 2 ranks

Explanations:

Shape (2,3,2) in NumPy array indicates 2 rows, 3 ranks, 2 columns.

---

5. What type of chart should we use if we have estimated a set of data and want to plot the uncertainty of the estimation?

○ Heap map

○ 3D surface

○ Contour plot

○ Error bar plot

Explanations:

An Error bar plot is used to visualize the uncertainty of data. Whereas, 3D surface is for visualizing 3D functions.

---

6. In statistics, a Type II error occurs when:

○ a null hypothesis is rejected but should not be rejected

○ a null hypothesis is not rejected but should be rejected

○ a test statistic is incorrect

○ a hypothesis is chosen incorrectly

Explanations:

A Type II error occurs when a null hypothesis is not rejected but should be rejected.

---

7. In BeautifulSoup, .parent is used to:

○ Navigate down

○ Navigate sideways

○ Navigate up

○ Navigate back and forth

Explanations:

To navigate up, BeautifulSoup has the .parent method.

---

8. In Beautiful Soup, which of the following is used to create a new tag?

○ .new_tag()

○ .add_tag()

○ .append_tag()

○ .create_tag()

Explanations:

.new_tag is the right method to create a new tag.

---

9. In BeautifulSoup, what are the options to search a web tree?

☐ find()

☐ findall()

☐ search()

☐ searchall()

Explanations:

Find() and findall() are the searching tree options in BeautifulSoup.
Find() and findall() are the searching tree options in BeautifulSoup.

---

10. We need to define an index in Pandas.

◯ TRUE

◯ FALSE

Explanations:

Index assignment happens automatically in Pandas.

---

11. In Pandas series, data can be accessed through different functions such as:

☑ loc()

☑ iloc()

☐ access()

☐ get()

Explanations:

loc() and iloc() are the right methods to access elements in a Pandas Series.
loc() and iloc() are the right methods to access elements in a Pandas Series.

---

12. What will be the result in vector addition if labels are not found in a series?

◯ Will be marked as Zeros

◯ Will be skipped

◯ Will be marked as NaN

◯ Will throw an exception, index not found

Explanations:

The missing labels will be marked as NaN (Not a Number).

---

13. Which function will you use from the NumPy library to convert the angles from degrees to radians?

◯ radians(x[, out])

◯ degree(x[, out])

◯ rad2deg(x[, out])

◯ convert(x[, out])

Explanations:

To convert an angle from degrees to radians, a rad2deg function is used.

---

14. Which of the following structures is used for three-dimensional data analysis in Pandas?

◯ DataFrame

◯ Panel

◯ Series

◯ Panel 3D

Explanations:

Panel is not the commonly used data structure in Pandas. However, it is used to analyze 3-dimensional data.

---

15. How can you view the first 10 records in a Pandas DataFrame?

○ top(10)

○ get(10)

○ head(10)

○ first(10)

Explanations:

The head(n) method gives the number of records mentioned as n in the parentheses.

---

16. What does the following code do? import pandas as pd df = pd.read_csv('log-access_file.csv')

○ Imports pandas directory

○ Loads a csv file into a DataFrame

○ Initiates a program in pandas

○ Ends a program in pandas

Explanations:

The purpose of this code is to load a csv file using the pandas DataFrame structure.

---

17. Who is a data scientist?

○ Mathematician

○ Statistician

○ Software programmer

○ All of the above

Explanations:

Data scientists work on a huge amount of data points (unstructured and structured), and use their math, statistics, and programming skills to clean and organize them. So, essentially, they are all these.

18. In NLP, stemming is a technique to:

○ split words, phrases, idioms

○ map valid word root

○ discover topics in a collection of documents

○ determine where one word ends and other begins

Explanations:

Stemming is a technique to map valid root word while processing a document through Natural Language Process (NLP)

19. Predict the correct output of the following code: >>>a=np.arange(6) >>>print(a)

○ [0 1 2 3 4 5]

○ [0, 1 2, 3 4,5]

○ [0 1 2 3 4 5]

○ [0 1 2 3]

Explanations:

The given command will generate a one-dimensional array of 6 numbers.

20. In Machine learning, predictive modeling works on:

○ train and test data set

○ features

○ responses

○ labels

Explanations:

Predictive modeling requires a train and test data set which can be built from the provided dataset using machine learning techniques (train and split).

---

21. If a database is imported, and there is no index for its values and dates, how do you create one?

○ df.set_index('Date' = True)

○ df.set_index('Date'= true, in place = True)

○ df.set_index('Date', in place = True)

○ df.set_index(in_place=True)

Explanations:

Pandas set.index function can be used to create an index. The correct syntax will be: df.set_index('Date', in place = True).

---

22. A client reading data from the HDFS file system in Hadoop _____.

○ gets data from the NameNode

○ gets both data and block location from the NameNode

○ gets the block location from the DataNode

○ gets only the block location from the NameNode

Explanations:

A client gets the block location from the NameNode and data from the DataNode.

---

23. Hadoop is written in:

○ Scala

○ Java

○ Python

○ Java and Python

Explanations:

Hadoop is written in Java.

---

24. In Spark, RDDs can be created from the datasets stored externally

○ TRUE

○ FALSE

Explanations:

In Spark, RDDs can be created from the datasets stored externally and from internally stored datasets.

---

25. MapReduce was devised by_____.

○ Google

○ Microsoft

○ Apple

○ Samsung

Explanations:

MapReduce was devised by Google.

---

26. In BeautifulSoup,how can you remove all modified tags?

○ tag.clean()

○ tag.clear()

○ tag.replace()

○   tag.remove()

Explanations:

tag.clear() removes all the data modified tag for the given tag object.

---

27. In BeautifulSoup , how can you view tag attributes?

○   tag.attributes()

○   tag.attrs

○   tag.getAttr()

○   tag.getAttributes()

Explanations:

tag.attrs gives all the attributes associated with a tag object.

---

28. Who developed the BeautifulSoup library?

○   Python.org

○   Crummy

○   WinPython

○   Scipy.org

Explanations:

Crummy developed the Beautiful Soup library.

---

29. Which of the following parsers has an external C dependency?

○   lxml

○   html5lib

◯ Python's html.parser

◯ None of the above

Explanations:

lxml parser has an external C dependency.

---

30. Which of these classes can be used to parse a part of a document?

◯ BeautifulSoup

◯ Parse only

◯ SoupStrainer

◯ None of the above

Explanations:

SoupStrainer class can be used to parse a part of a document.

---

31. Which of the following operations is performed by Search Engines?

◯ Search Engine Optimization

◯ Web Scrapping

◯ Web Automation

◯ Web Indexing

Explanations:

Web Indexing is performed by the Search Engines.

---

32. How can you edit the Navigable String?

◯ With update()

○ With rename()

○ **Can't edit Navigable String**

○ with append()

Explanations:

It is not possible to edit the Navigable String, but we can replace it.

---

33. Which of the following parsers cannot be used for parsing a part of a document?

○ **html5lib**

○ lxml

○ Both A and B

○ None of the above

Explanations:

With html5lib, it is not possible to parse a part of a document.

---

34. Which of the following is a very slow parser?

○ lxml

○ **html5lib**

○ Python's html.parser

○ None of the above

Explanations:

html5lib is one of the slowest parsers.

---

35. What will be the output of the following code line?
feature_extraction.text.CountVectorizer([...])

○ Converts a collection of text documents to a matrix of token counts

○ Converts a collection of text documents to an array of token counts

○ Transforms the newsgroup dataset into an array

○ Invalid code

Explanations:

The Scikit-learn function extracts and converts a collection of text documents to a matrix of token counts.

36. How will you save a plot as a PNG image in matplotlib?

○ save fig('Fig1.png')

○ pylab.savefig

○ pylab.savefig('Fig1.png')

○ None of the above

Explanations:

The function pylab.savefig helps save a plot in the required format.

37. Which of the following methods is used to create a model in Scikit-learn?

○ Fit

○ Predict

○ Both A and B

○ None of the above

Explanations:

The "fit" method is used to develop a model from the data in scikit-learn.

38. In the Kmeans clustering technique, which method sets the number of clusters?

○ n_number

○ n_clusters

○ cluster=3

○ cluster(3)

Explanations:

The n_clusters parameter sets the number of clusters in Kmeans clustering technique.

39. Which of the following is an important component of the text processing pipeline?

○ CountVectorizer

○ TfidfTransformer

○ Regression estimator

○ Both A and B

Explanations:

CountVectorizer and TfidfTransformer are important parts of the text processing pipeline.

40. What is the operation conducted by the following code line?>>>for link in soup.find_all('a'):print(link.get('href'))

○ Finding all the "a" tags

○ Extracting all the URLs found within a page's <a>tags

○ Error in first line

○ Error in second line

Explanations:

This code snippet extracts all the URLs found within a page's <a> tags.

---

41. Which of the following is useful to save a model?

○ Pickle

○ Joblib

○ Both A and B

○ None of the above

Explanations:

Both pickle and joblib are useful to save a model.

---

42. Which of the following code lines has a valid syntax? >>>soup = BeautifulSoup(open("index.html")) >>>soup = BeautifulSoup("<html>data</html>")

○ First line

○ Second line

○ Both the lines

○ Both lines have errors

Explanations:

Both the code lines have a valid syntax.

---

43. Which of the following code snippets is used to print all the tag children?

○ for child in head_tag.descendants: print(child)

○ for child in title_tag.children: print(child)

○ soup.Contents

○ None of the above

Explanations:

The descendants attribute is used to print all tag children.

---

44. To find out unique target classes in the dataset, which of the following code snippet is useful?

◯   dataset.target

◯   np.unique(dataset.target)

◯   sklearn.unique(dataset.target)

◯   sklearn.unique(dataset.y)

Explanations:

np.unique(dataset.target) is used to find out unique target classes in the dataset.

---

45. What is the built-in database used for Python?

◯   mysql

◯   pysqllite

◯   sqllite3

◯   pysqln

Explanations:

sqllite3 is the database which is provided and can be used within Python programs readily.

---

46. Is the following slicing technique right? >>tuple[-4]

◯   TRUE

◯   FALSE

Explanations:

A negative index can be used to slice a tuple with the first index stating from -1 from the right.

---

47. Which library is used to check the accuracy of a predictive model in sklearn?

○ metrics

○ test_accuracy

○ validate

○ check_score

Explanations:

Metrics is the right library which needs to be imported from sklearn and then the accuracy_score() method can be used to check the accuracy of predictive model.

---

48. How can you view only keys in a basic data structure dictionary?

○ getKeys()

○ keys()

○ fetchKeys()

○ receiveKeys()

Explanations:

keys() is the right method to get all the keys in a dictionary.

---

49. Which of the following is a useful technique to reduce the number of dimensions from 5 to 3?

○ K-means clustering

○ Affinity Propagation

◯ Principal Component Analysis

◯ Hierarchical Clustering

Explanations:

Principal Component Analysis is the technique used for dimensionality reduction.

---

50. in method returns a boolean value.

◯ TRUE

◯ FALSE

Explanations:

in method of basic python returns boolean values.

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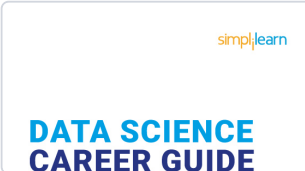
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