

Travelers EDP Week 4 Review

1. Which of the following statements are true? Select all that apply.
 - a) npm is a model-view-controller application framework for JavaScript applications.
 - b) npm is a dependency management tool for JavaScript applications.
 - c) pip is a standard package manager for python.
 - d) pip is a data science processing model for python.
 - e) None of the above
2. Which of the following statements are false dev data ops environment? Select all that apply.
 - a) Jenkins tasks cannot be triggered by GitHub Actions.
 - b) MongoDB stores data in BSON format both internally, and over the network.
 - c) React components support two-way data flow.
 - d) JSON stands for JavaScript Serialized Object Notation.
 - e) None of the above
3. What is CAP features in a distributed computing environment?
 - a) Consistency, Availability, Portable
 - b) Consistency, Availability, Partition
 - c) Coverage, Availability, Persistence
 - d) Constant, Availability, Partition
 - e) None of the above
4. Which of the following systems support python development and testing?
 - a) Windows
 - b) Linux
 - c) Mac
 - d) All the above
 - e) None of the above
5. Which of the following cloud providers supported by Snowflake architecture?
 - a) AWS
 - b) Cloud Foundry
 - c) Azure
 - d) All the above
 - e) None of the above

6. Which of the following statements are true in the context of data science?
- a) Python pandas library provides high performance, memory efficient data structures.
 - a) Anaconda distribution of python is commonly used in data science.
 - b) Lambda is an anonymous function in python.
 - c) All the above
 - d) None of the above
7. Which of the following statements are true about cloud computing?
- a) SaaS, PaaS, and IaaS are three commonly used cloud service models.
 - b) AWS S3 buckets can be used to host static web sites
 - c) Cloud governance is a set of rules and protocols put in place to enhance security and manage risks
 - d) All the above
 - e) None of the above
8. Which of the following are true about python data structures?
- a) A list is a collection of ordered data.
 - b) A dictionary is an ordered collection of data that stores data in key-value pairs.
 - c) A dictionary is an unordered collection of data that stores data in key-value pairs.
 - d) All the above
 - e) None of the above
9. What will be the output of the following python code?
- ```
data = {'name': 'travelers', 'business': 'insurance', 'years': '165'}
for key in data:
 print(key)
```
- a) {'name': 'travelers', 'business': 'insurance', 'years': '165'}
  - b) name  
business  
years
  - c) travelers  
insurance  
165
  - d) SyntaxError: invalid syntax
  - e) None of the above

10. Which of the following are application modernization strategies?

- a) Redesign
- b) Refactor
- c) Rehost
- d) Replace
- e) All the above
- f) None of the above

11. Which of the following statements are true about Express?

- a) Express is a front-end user interface for web applications.
- b) Express is a middleware that runs on node.js environment.
- c) Express is a powerful JavaScript in memory database
- d) Express is a JavaScript server-side application to support REST web services and middleware applications
- e) None of the above

12. Which of the following git commands is used to reinitialize an existing git repository on your lab machine?

- a) git reinit
- b) git re-init
- c) git init
- d) git -local-repo re-init
- e) None of the above

13. What will be the output of the following python code?

```
travelers_insurances = {'home': ('condo', 'single family', 'multi family'), 'vehicle': ('auto', 'boat', 'motorcycle') ,
 'others': ('renters', 'valuables', 'pet')}
for key, value in travelers_insurances.items():
 print(value)
```

- a) SyntaxError: invalid syntax
- b) {'home': ('condo', 'single family', 'multi family'), 'vehicle': ('auto', 'boat', 'motorcycle'), 'others': ('renters', 'valuables', 'pet')}
- c) ('condo', 'single family', 'multi family')  
('auto', 'boat', 'motorcycle')  
('renters', 'valuables', 'pet')
- d) home  
vehicle  
others
- e) None of the above

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

```
import pandas as pd

s = pd.Series(['Home','Auto','Pet','Disaster','Others'],index = ['A','B','C','D','E'])

print (s['B'])
```

- a) SyntaxError: invalid syntax
- b) KeyError
- c) Pet
- d) Auto
- e) None of the above

15. What will be the output of the following python code?

```
import pandas as pd

import numpy as np
data = np.random.randn(4)

s = pd.Series(np.random.randn(4))
print(type (s))
```

- a) SyntaxError: invalid syntax
- b) <class 'numpy.ndarray'>
- c) <class 'pandas.core.series.Series'>
- d) <class 'numpy.float64'>
- e) none of the above

16. What is scikit-learn in python?

- a) Open-source library that provides easy to use, memory efficient and high-performance data structures
- b) Python module for machine learning built on top of SciPy
- c) Python based open-source software for mathematics, science, and engineering
- d) A scientific computing toolkit used for learning purposes
- e) none of the above

17. Which of the following are phases in a typical data processing pipeline?

- a) Data Discovery Phase
- b) Data Harvesting Phase
- c) Data Priming Phase
- d) All the above
- e) Not Sure

18. Which of the following are data visualization libraries used by python developers?

- a) seaborn
- b) matplotlib
- c) ggplot
- d) All the above
- e) None of the above

19. Which of the following are supervised Machine Learning algorithms?

- a) Random Forest
- b) Gaussian mixture models
- c) Hierarchical clustering
- d) k-Nearest Neighbors (kNN)
- e) None of the above

20. In ML, Machine Learning algorithms build a model based on sample data. This activity is known as \_\_\_\_\_.

- a) Data Transfer
- b) Training data
- c) Data Transformation
- d) Data Validation
- e) None of the above