

**Department Business Intelligence (DBI)**  
**Master of Business Administration Programme**  
**M.B.A. SEMESTER – II EXAMINATION**  
**April 2024 MBA- (BI)-207**

**MBA in Business Intelligence**  
**Subject: Python for Business Analytics (PBA)**

Date: 24/04/2024

Duration: 1 Hour.

Marks:70

- Instructions :**(1) This paper contains **Thirty Five** questions.  
(2) Each Question is of 2 Marks.  
(3) Each Question is of multiple choices.  
(4) All questions are compulsory.

- Q.1** What will happen if you try to access a key that doesn't exist in a dictionary? **02**
- A. Python will raise an error
  - B. Python will return None
  - C. Python will return an empty dictionary
  - D. Python will add the key to the dictionary automatically
- Q.2** How do you remove a key-value pair from a dictionary? **02**
- A. Using the remove() method
  - B. Using the delete() method
  - C. Using the pop() method
  - D. Using the discard() method
- Q.3** What will be the output type of the following code snippet? **02**
- ```
x = {"a": 1, "b": 2, "c": 3}
y = x.keys()
print(type(y))
```
- A. dict\_keys
  - B. list
  - C. tuple
  - D. set

- Q.4** What will be the output type of the following code snippet? **02**  
`x = "Hello"`  
`y = 3`  
`z = x * y`  
`print(type(z))`  
 A. int  
 B. str  
 C. tuple  
 D. list
- Q.5** Consider the following Python code snippet: **02**  
`def calculate_area(radius):`  
 `area = 3.14 * radius ** 2`  
 `print(area)`  
`result = calculate_area(5)`  
 What will be the output type of the result variable?  
 A. int  
 B. float  
 C. NoneType  
 D. str
- Q.6** How do you define a function in Python? **02**  
 A. Using the define keyword  
 B. Using the function keyword  
 C. Using the func keyword  
 D. Using the def keyword
- Q.7** How can you merge two DataFrames in Pandas? **02**  
 A. Using the merge() method  
 B. Using the concat() method  
 C. Using the join() method  
 D. All of the above
- Q.8** What is the purpose of the fillna() method in Pandas? **02**  
 A. To delete rows with missing values  
 B. To fill missing values with a specified value  
 C. To drop columns with missing values  
 D. To rename columns with missing values
- Q.9** Which of the following is NOT a valid method to read data into a Pandas DataFrame? **02**  
 A. pd.read\_csv()  
 B. pd.read\_excel()  
 C. pd.load\_data()  
 D. pd.read\_json()

- Q.10** What is the primary purpose of using the head() method in Pandas? **02**
- A. To display the last few rows of a DataFrame
  - B. To display the first few rows of a DataFrame
  - C. To check the shape of a DataFrame
  - D. To sort the DataFrame in ascending order
- Q.11** In Pandas, which data structure is used to represent one-dimensional labeled arrays capable of holding any data type? **02**
- A. Series
  - B. DataFrame
  - C. Array
  - D. List
- Q.12** Consider the following NumPy code snippet: **02**
- ```
import numpy as np
arr = np.array([1, 2, 3])
result = arr.max()
print(type(result))
```
- What will be the output type of the result variable?
- A. int
  - B. float
  - C. numpy.int64
  - D. numpy.float64
- Q.13** What does the describe() method in Pandas provide? **02**
- A. Summary statistics of numeric columns
  - B. Information about the data types of columns
  - C. Detailed description of each column
  - D. Histograms of all columns
- Q.14** Consider the following Pandas DataFrame: **02**
- ```
import pandas as pd
data = {'Name': ['John', 'Alice', 'Bob'],
        'Age': [25, 30, 35],
        'Salary': [50000, 60000, 70000]}
df = pd.DataFrame(data)
result = df.describe()
print(result)
```
- What will be the output of the result variable?
- A. Summary statistics of the DataFrame
  - B. Information about the data types of columns
  - C. Detailed description of each column
  - D. Histograms of all columns

**Q.15** Consider the following Pandas DataFrame: **02**

```
import pandas as pd
data = {'Name': ['John', 'Alice', 'Bob'],
        'Age': [25, 30, 35],
        'Salary': [50000, 60000, 70000]}
df = pd.DataFrame(data)
result = df['Age'].mean()
print(result)
```

What will be the output of the result variable?

- A. 25.0
- B. 30.0
- C. 35.0
- D. 30

**Q.16** Consider the following Pandas DataFrame: **02**

```
import pandas as pd
data = {'Name': ['John', 'Alice', 'Bob'],
        'Age': [25, 30, 35],
        'Salary': [50000, 60000, 70000]}
df = pd.DataFrame(data)
result = df.loc[0, 'Age']
print(result)
```

What will be the output of the result variable?

- A. 'John'
- B. 'Alice'
- C. 'Bob'
- D. 25

**Q.17** What will be the output of the following code snippet? **02**

```
for i in range(1, 6):
    print(i, end=' ')
```

- A. 1 2 3 4 5
- B. 0 1 2 3 4
- C. 1 2 3 4
- D. 0 1 2 3 4 5

**Q.18** Which keyword is used to initiate a for loop in Python? **02**

- A. For
- B. loop
- C. iterate
- D. while

- Q.19** In Python, which statement is used to skip the current iteration of a loop and proceed to the next iteration? **02**
- A. break
  - B. continue
  - C. pass
  - D. next
- Q.20** What will be the output of the following code snippet? **02**
- ```
num = 5
while num > 0:
    print(num, end=' ')
    num -= 1
else:
    print("Loop finished")
```
- A. 5 4 3 2 1  
Loop finished
  - B. 4 3 2 1  
Loop finished
  - C. Loop finished
  - D. 5 4 3 2 1
- Q.21** What will be the output of the following code snippet? **02**
- ```
my_dict = {'a': 1, 'b': 2, 'c': 3}
del my_dict['b']
print(my_dict)
```
- A. {'a': 1, 'b': 2}
  - B. {'a': 1, 'c': 3}
  - C. {'b': 2, 'c': 3}
  - D. Error
- Q.22** What will be the output of the following code snippet? **02**
- ```
my_dict = {'a': 1, 'b': 2, 'c': 3}
print(my_dict.get('d', 0))
```
- A. 1
  - B. 2
  - C. 3
  - D. 0

- Q.23** What will be the output of the following code snippet? **02**  
`my_dict = {'a': 1, 'b': 2, 'c': 3}  
my_dict['d'] = 4  
print(my_dict)`  
A. {'a': 1, 'b': 2, 'c': 3}  
B. {'a': 1, 'b': 2, 'c': 3, 'd': 4}  
C. {'d': 4}  
D. Error
- Q.24** What will be the output of the following code snippet? **02**  
`my_list = [1, 2, 3, 4, 5]  
my_list.remove(3)  
print(my_list)`  
A. [1, 2, 3, 4, 5]  
B. [1, 2, 3, 5]  
C. [1, 2, 4, 5]  
D. [2, 3, 4, 5]
- Q.25** What will be the output of the following code snippet? **02**  
`my_tuple = (1, 2, 3, 4, 5)  
print(my_tuple.index(4))`  
A. 1  
B. 2  
C. 3  
D. 4
- Q.26** What will be the output of the following code snippet? **02**  
`my_set = {1, 2, 3, 4, 5}  
print(3 in my_set)`  
A. True  
B. False  
C. None  
D. Error
- Q.27** What will be the output of the following code snippet? **02**  
`my_set1 = {1, 2, 3}  
my_set2 = {3, 4, 5}  
print(my_set1.difference(my_set2))`  
A. {1, 2, 3}  
B. {3, 4, 5}  
C. {1, 2}  
D. Error

- Q.28** What will be the output of the following code snippet? **02**  

```
my_set = {1, 2, 3, 4, 5, 6}
my_set.add(6)
print(my_set)
```

  - A. {1, 2, 3, 4, 5}
  - B. {6, 1, 2, 3, 4, 5}
  - C. {1, 2, 3, 4, 5, 6}
  - D. {1, 2, 3, 4, 5, 6, 6}

**Q.29** Which of the following data types is mutable in Python? **02**  
  - A. Tuple
  - B. String
  - C. Integer
  - D. List

**Q.30** What will be the output of the following code snippet? **02**  

```
my_list = [1, 2, 3]
print(my_list[1])
```

  - A. 1
  - B. 2
  - C. 3
  - D. Error

**Q.31** Which of the following data types is used to store a sequence of characters in Python? **02**  
  - A. List
  - B. Tuple
  - C. String
  - D. Set

**Q.32** What will be the output of the following code snippet? **02**  

```
x = 5
y = 5
print(x is y)
```

  - A. True
  - B. False
  - C. None
  - D. Error

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- Q.33** What is the output of the following code? **02**
- ```
def add(a, b):
    return a + b
result = add(3, 5)
print(result)
```
- A. 3
  - B. 5
  - C. 8
  - D. Error
- Q.34** How can you select a single column from a DataFrame in Pandas? **02**
- A. Using square brackets notation
  - B. Using the select() method
  - C. Using the column() method
  - D. Using the slice() method
- Q.35** What will be the output of the following code snippet? **02**
- ```
import pandas as pd

data = {'Name': ['Prejm', 'Nupur', 'Sakshi'],
        'Age': [25, 30, 35],
        'Salary': [50000, 60000, 70000]}
df = pd.DataFrame(data)
result = df['Name'].tolist()
print(type(result))
```
- A. list
  - B. pandas.Series
  - C. numpy.ndarray
  - D. pandas.DataFrame

— X —