Python for Data Science

Week 1

1. What is the output of the following code? [1 marks]

```
a = 3
b = "12"

print(a*b)
```

   (a) 36
   (b) 121212
   (c) 123
   (d) Error: Invalid operation, unsupported operator '*' used between 'int' and 'str'

   Answer: (b)

2. What is the output of the following code? [1 marks]

```
a = -9//7
print(a)
```

   (a) -1
   (b) -2
   (c) -1.28
   (d) 1.28

   Answer: (b)

3. Consider a following code snippet. What is a data type of y? [1 marks]

```
x = 15
y = str(float(x))
```

(a) int

(b) float

(c) str

(d) Code will throw an error.

Answer: (c)

4. Which of the following variable names are INVALID in Python? [1 mark]

(a) 1_variable

(b) variable_1

(c) variable1

(d) variable#

Answer: a, d

5. While naming the variable, use of any special character other than underscore(_) will throw which type of error? [1 mark]

(a) Syntax error

(b) Key error

(c) Value error

(d) Index error

Answer: a

6. Let x = "Mayur". Which of the following commands converts the 'x' to float datatype? [1 mark]

(a) str(float,x)

(b) x.float()

(c) float(x)

(d) Cannot convert a string to float data type

Answer: d

7. Which Python library is commonly used for data wrangling and manipulation? [1 mark]

   (a) Numpy

   (b) Pandas

   (c) scikit

   (d) Math

   Answer: b

8. Predict the output of the following code. [1 mark]

```
x = 10
y = 5
z = 3

ans = x + y % z

print(ans)
```

   (a) 12.0

   (b) 12

   (c) 11.667

   (d) 11

   Answer: b

9. Given two variables, **j = 6** and **g = 3.3**. If both normal division and floor division operators were used to divide **j** by **g**, what would be the data type of the value obtained from the operations? [1 point]

   (a) int, int

   (b) float, float

   (c) float, int

   (d) int, float

   Answer: b

10. Let a = 5 (101 in binary) and b = 3 (011 in binary). What is the result of the following operation? [1 mark]

```
a = 5
b = 3

print(a & b)
```

(a) 3

(b) 7

(c) 5

(d) 1

Answer: d