



Name:

Enrolment No:

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, May 2022**

**Course: Programming for analytics**

**Program: MBA BA**

**Course Code: DSBA 8004**

**Semester: IV**

**Time : 03 hrs.**

**Max. Marks: 100**

**Instructions:**

**SECTION A**  
**10Qx2M=20Marks**

S. No.		Marks	CO
Q1.	<p>1. What happens when '2' == 2 is executed?</p> <ol style="list-style-type: none"><li>False</li><li>Ture</li><li>ValueError occurs</li><li>TypeError occurs</li></ol> <p>2. Which of the following data types is shown below?</p> <ol style="list-style-type: none"><li>L = [2, 54, 'javatpoint', 5]</li></ol> <p>What will be the output of this statement?</p> <ol style="list-style-type: none"><li>Dictionary</li><li>Tuple</li><li>List</li><li>Stack</li></ol> <p>3. Which of the following option is not a core data type in the python language?</p> <ol style="list-style-type: none"><li>Dictionary</li><li>Lists</li><li>Class</li><li>All of the above</li></ol> <p>4. Study the following program:</p> <ol style="list-style-type: none"><li>d = {0, 1, 2}</li><li>for x in d:</li><li>print(x)</li></ol> <p>What will be the output of this statement?</p> <ol style="list-style-type: none"><li>{0, 1, 2} {0, 1, 2} {0, 1, 2}</li><li>0 1 2</li><li>Syntax_Error</li><li>None of these above</li></ol>	<b>10QX2=20</b>	<b>CO1</b>

5. Study the following program:

1. `x = 'pqrs'`
2. `for i in range(len(x)):`
3. `x[i].upper()`
4. `print (x)`

Which of the following is the correct output of this program?

- a. PQRS
- b. pqrs
- c. qrs
- d. None of these

6. Study the following program:

1. `i = 0`
2. `while i < 3:`
3. `print(i)`
4. `i += 1`
5. `else:`
6. `print(0)`

What will be the output of this statement?

- a. 0 1
- b. 0 1 2
- c. 0 1 2 0
- d. 0 1 2 3

7. Study the following function:

1. `import math`
2. `abs(math.sqrt(36))`

What will be the output of this code?

- a. Error
- b. -6
- c. 6
- d. 6.0

8. Which one of the following has the highest precedence in the expression?

- a. Division
- b. Subtraction
- c. Power
- d. Parentheses

9. Which of the following operators is the correct option for power(ab)?

- a. `a ^ b`
- b. `a**b`
- c. `a ^^ b`
- d. `a ^ * b`

	10. What do we use to define a block of code in Python language? a. Key b. Brackets c. Indentation d. None of these		
<b>SECTION B</b> <b>4Qx5M= 20 Marks</b>			
Q2.	Discuss the int(), float(), str(), and chr() type conversion functions with examples.		<b>CO2</b>
Q3.	Illustrate the different types of conditional statements available in Python with syntax.		<b>CO2</b>
Q4.	Describe different relational operators of python with the help of examples.		<b>CO2</b>
Q5.	Differentiate between the inbuilt and user defined functions.		<b>CO2</b>
<b>SECTION-C</b> <b>3Qx10M=30 Marks</b>			
Q6.	Define a function in python to calculate the area and circumference of the circle.		<b>CO2</b>
Q7.	Describe the different types of data structure used in python with the help of suitable program.		<b>CO2</b>
Q8.	Write output of following codes: a) <b>for i in range(8):</b> <b>print("Amit")</b> <b>print(i)</b> b) <b>for i in range(10,31):</b> <b>print(i)</b> c) <b>for i in range(2,21,3):</b> <b>print(i)</b> d) <b>i = 3</b> <b>while i &lt; 10:</b> <b>print(i)</b> <b>i=i+1</b>		<b>CO2</b>
<b>SECTION-D</b> <b>2Qx15M= 30 Marks</b>			
Q9.	Write the following programs in python: A) To find number is even or odd. B) To find sum first 50 natural numbers.		<b>CO3</b>

	C) To convert temperature Celsius to Fahrenheit		
Q10.	Write the explanation of the below program line by line:  <pre>import numpy as np import pandas as pd df=pd.read_excel("f:/bigmart_data.xls") df.info() df.head() df.describe() df.shape df.tail(10) df['Ship Mode', 'Category'] df['Category'].unique() df.iloc[4] df.iloc[2:4] df.iloc[: ] df.iloc[:,4] df.iloc[1:4,2:5]</pre>		CO3