

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, June 2021

Programme Name: B.Tech (SoE)

Course Name : Computing with Python (Minor Specialization)

Course Code : MRDA0202

Semester : IV

Time : 3 Hr

Max. Marks : 100

Instructions:

1. Attempt all the questions[MCQ and other]
2. Attempt all questions serially as per Question paper and **Upload all Answers in Section C.**
3. Answer should be neat and clean. Draw a free hand sketch for circuits/tables/schematics wherever required.
4. You are expected to be honest about each attempt which you make to progress in life

S. No.		Marks	
Q1	What happens when <code>'2' == 2</code> is executed? a. False b. True c. ValueError occurs d. TypeError occurs	2	
Q2	Study the following program: <pre>def example(a): aa = a + '1' aa = a*1 return a >>>example("Python_point")</pre>	2	

	<p>What will be the output of this statement?</p> <p>a. hello2hello2 b. hello2 c. Cannot perform mathematical operation on strings d. Indentation Error</p>		
Q3	<p>Which of the following option is not a core data type in the python language?</p> <p>a. Dictionary b. Lists c. Class d. All of the above</p>	2	
Q4	<pre>x = 'pqrs' for i in range(len(x)): x[i].upper() print (x)</pre> <p>Which of the following is the correct output of this code?</p> <p>a. PQRS b. pqrs c. qrs d. None of these</p>	2	
Q5	<pre>r = lambda q: q * 2 s = lambda q: q * 3 x = 2 x = r(x) x = s(x) x = r(x) print (x)</pre> <p>Predict and write the output of the aforementioned code.</p>	2	

Q6	<pre>nameList = ['Harsh', 'Pratik', 'Bob', 'Dhruv'] print nameList[1][-1]</pre> <p>Suggest the output of the code in Python.</p>	<p style="text-align: center;">2</p>	
Q7	<pre>1. x = ['xy', 'yz'] 2. for i in a: 3. i.upper() 4. print(a)</pre> <p>Which of the following is correct output of this program?</p> <p>a. ['xy', 'yz'] b. ['XY', 'YZ'] c. [None, None] d. None of these</p>	<p style="text-align: center;">2</p>	
Q8	<pre>import sys L1 = tuple() print(sys.getsizeof(L1)) L1 = (1, 2) print(sys.getsizeof(L1)) L1 = (1, 3, (4, 5)) print(sys.getsizeof(L1)) L1 = (1, 2, 3, 4, 5, [3, 4], 'p', '8', 9.777, (1, 3)) print(sys.getsizeof(L1))</pre> <p>Expect the approximate output of the following code in PYTHON language:</p> <p>a) 0 2 3 10 b) 32 34 35 42 c) 48 64 72 128 d) 48 144 192 480 e) 56 72 80 136</p>	<p style="text-align: center;">2</p>	

<p>Q9</p>	<p>What is the method inside the class in python language?</p> <ul style="list-style-type: none"> a. Object b. Function c. Attribute d. Argument 	<p>2</p>	
<p>Q10</p>	<p>Which of the following statements is correct regarding the object-oriented programming concept in Python?</p> <ul style="list-style-type: none"> a. Classes are real-world entities while objects are not real b. Objects are real-world entities while classes are not real c. Both objects and classes are real-world entities d. All of the above 	<p>2</p>	
<p>Q11</p>	<p>Read through the following and develop a code as stated:</p> <p>To access values in lists, we use the square brackets for slicing along with the index or indices to obtain required value available at that index. For N items in a List MAX value of index will be N-1.</p> <p><u>Write a code in Python to execute all the understated statements:</u></p> <p>Statement 1: This will print item located at index 0 in Output.</p> <p>Statement 2: This will print item located at index -2 i.e. second last element in Output.</p> <p>Statement 3: This will print items located from index 1 to end of the list.</p> <p>Statement 4: This will print items located from index 1 to 4 of the list</p>	<p>8</p>	
<p>Q 12</p>	<pre>import threading class thread(threading.Thread): def __init__(self, thread_ID, thread_name): threading.Thread.__init__(self) self.thread_ID = thread_ID</pre>	<p>2</p>	

```
self.thread_name = thread_name

def run(self):

    print(self.thread_name)

thread1 = thread(100, "GFG ")
thread2 = thread(101, "Geeks ")
thread3 = thread(102, "GeeksforGeeks ")

thread = [ ]

thread.append(thread1)
thread.append(thread2)
thread.append(thread3)

thread1.start()
thread2.start()

for thread in thread:

    thread.join()

thread3.start()

print("Exit")
```

Predict the output:

- a) GFG Geeks GeeksforGeeks Exit
- b) Compilation error
- c) Program will halt in between due to Runtime error
- d) None of these

Q13	Which of the statements about dictionary values if false?	2	
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	<p>a) More than one key can have the same value</p> <p>b) The values of the dictionary can be accessed as 'dict'[key]</p> <p>c) Values of a dictionary must be unique</p> <p>d) Values of a dictionary can be a mixture of letters and numbers</p>		
Q14	<p>What will be the output of the following Python code snippet?</p> <pre>total={} def insert(items): if items in total: total[items] += 1 else: total[items] = 1 insert('Apple') insert('Ball') insert('Apple') print (len(total))</pre> <p>a) 3 b)1 c)2 d) 0</p>	2	
Q15	<p>The value of the expressions $4/(3*(2-1))$ and $4/3*(2-1)$ is the same.</p> <p>a) True b) False</p>	2	
Q16	<p>Write a code in PYTHON to implement a QUEUE and enlist its run-time cases.</p>	10	
Q17	<p>Which one of the following is the correct extension of the Python file?</p> <p>a) .py b) .python c) .p d) None of these</p>	2	
Q18	<p>What is the maximum possible length of an identifier?</p> <p>a. 16 b. 32 c. 64 d. None of these above</p>	2	
Q19	<p>What error will occur when you execute the following code?</p> <p>MANGO = APPLE</p> <p>a. NameError b. SyntaxError</p>	2	

	<ul style="list-style-type: none"> c. TypeError d. ValueError 		
Q20	<p>How many control statements python supports?</p> <ul style="list-style-type: none"> a. Four b. Five c. Three d. None of the these 	2	
Q21	<p>Which of the following arithmetic operators cannot be used with strings in python?</p> <ul style="list-style-type: none"> a. + b. * c. - d. All of the mentioned 	2	
Q22	<p>PVM is often called _____.</p> <ul style="list-style-type: none"> a. Python interpreter b. Python compiler c. Python volatile machine d. Portable virtual machine 	2	
Q23	<p>Which of the following objects are present in the function header in python?</p> <ul style="list-style-type: none"> a. Function name and Parameters b. Only function name c. Only parameters d. None of the these 	2	
Q24	<pre>from random import randrange L = list() for x in range(5): L.append(randrange(0, 100, 2)-10) # Choose which of outputs below are valid for this code. print(L)</pre> <ul style="list-style-type: none"> a) [-8, 88, 8, 58, 0] b) [-8, 81, 18, 46, 0] c) [-7, 88, 8, 58, 0] d) [-8, 88, 94, 58, 0] 	2	
Q25	<pre>numberGames = {} numberGames[(1,2,4)] = 8 numberGames[(4,2,1)] = 10 numberGames[(1,2)] = 12 sum = 0 for k in numberGames: sum += numberGames[k] print len(numberGames) + sum</pre>	2	

	Write the expected output for the above code in PYTHON.		
Q26	Write a Python program to Sort a List of Tuples in Increasing Order by the Last Element in Each Tuple.	8	
Q27	Code a Python Program to remove all tuples in a list of tuples with the USN outside the given range	8	
Q28	Suggest a code in PYTHON to count the frequency of words appearing in a string using a dictionary	4	
Q29	Which of the following statements is not valid regarding the variable in python? a. The variable_name can begin with alphabets b. The variable_name can begin with an underscore c. The variable_name can begin with a number d. None of the these	2	
Q30	<pre>arr = [3 , 2 , 5 , 6 , 0 , 7 , 9] add1 = 0 add2 = 0 for elem in arr: if (elem % 1 == 0): add1 = add1 + elem continue if (elem % 3 == 0): add2 = add2 + elem print(add1 , end=" ") print(add2)</pre> <p>What will be the output of this program?</p> <p>a. 32 0 b. 0 32 c. 18 0 d. 0 18</p>	2	
Q31	<ol style="list-style-type: none"> 1. class Teacher: 2. def __init__(name, id_no, age): 3. name.id_no = id_no 4. name.age = age 	2	

	<p>5. <code>teac = Teacher(5, 25)</code></p> <p>Which of the following statements is incorrect regarding this program?</p> <p>a. A constructor has been given in this program b. <code>id_no</code> and <code>age</code> are called the parameters c. The "<code>teac</code>" is the reference variable for the object <code>Teacher(5, 25)</code> d. None of the these</p>		
Q32	<p>Which of the following statements would create a tuple in python?</p> <p>a. <code>mytuple = ("apple", "banana", "cherry")</code> b. <code>mytuple[123] = ("apple", "banana", "cherry")</code> c. <code>mytuple = ("2" * ("apple", "banana", "cherry"))</code> d. None of the these</p>	2	
Q33	<p>In the Python Programming Language, syntax error is detected by _____ at _____.</p> <p>a. Interpreter / Compile time b. Run time / Interpreter c. Interpreter / Run time d. Compile time / Run time</p>	2	
Q 34	<p>Which of the following blocks allows you to handle the errors?</p> <p>a. <code>except</code> block b. <code>try</code> block c. <code>finally</code> block d. None of the these</p>	2	
Q 35	<p>Explain the following Built-in functions w.r.t. PYTHON:</p> <ol style="list-style-type: none"> 1. <code>abs()</code> 2. <code>all()</code> 3. <code>any()</code> 4. <code>format()</code> 	4	