

Enrollment No.....



Faculty of Engineering
End Sem (Even) Examination Dec-2022
OE00018 Python Essentials

Programme: B.Tech.

Branch/Specialisation: All

Duration: 3 Hrs.**Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. Which of the following is invalid? **1**
 (a) `_a = 1` (b) `__a = 1`
 (c) `__str__ = 1` (d) None of these
- ii. Which of the following is not a keyword? **1**
 (a) Eval (b) Assert (c) Nonlocal (d) Pass
- iii. What will be the output of the following code: **1**
`print type(type(int))`
 (a) type 'int' (b) type 'type' (c) Error (d) 0
- iv. What is the output of the following code? **1**
`def change(one, *two):`
`print(type(two))`
`change(1,2,3,4)`
 (a) Integer (b) Tuple
 (c) Dictionary (d) An exception is thrown
- v. Which of the following statements are true? **1**
 (a) When you open a file for reading, if the file does not exist, an error occurs
 (b) When you open a file for writing, if the file does not exist, a new file is created
 (c) When you open a file for writing, if the file exists, the existing file is overwritten with the new file
 (d) All of these
- vi. To read the next line of the file from a file object infile, we use- **1**
 (a) `infile.read(2)` (b) `infile.read()`
 (c) `infile.readline()` (d) `infile.readlines()`

P.T.O.

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- vii. Methods of a class that provide access to private members of the class are called as _____ and _____. **1**
 (a) getters/setters
 (b) __repr__/_str_
 (c) user-defined functions/in-built functions
 (d) __init__/_del__
- viii. What is the biggest reason for the use of polymorphism? **1**
 (a) It allows the programmer to think at a more abstract level
 (b) There is less program code to write
 (c) The program will have a more elegant design, and will be easier to maintain and update
 (d) Program code takes up less space
- ix. When will the else part of try-except-else be executed? **1**
 (a) Always
 (b) When an exception occurs
 (c) When no exception occurs
 (d) When an exception occurs in to except block
- x. What is the output of the following code? **1**
 a=[13,56,17]
 a.append([87])
 a.extend([45,67])
 print(a)
 (a) [13, 56, 17, [87], 45, 67] (b) [13, 56, 17, 87, 45, 67]
 (c) [13, 56, 17, 87,[45, 67]] (d) [13, 56, 17, [87], [45, 67]]
- Q.2 i. What is the output of print str * 2 if str = 'Hello World!'? **2**
 ii. Write a python script to display the current date and time. **3**
 iii. Write a python program which accepts the radius of a circle from the user and compute the area. **5**
- OR iv. Write a python program which accepts the user's first and last name and print them in reverse order with a space between them. **5**
- Q.3 i. Write a python function to find the maximum of three numbers. **2**
 ii. Write a python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument. **8**

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- OR iii. Write a python function that accepts a string and calculate the number of upper-case letters and lower-case letters. **8**
- Q.4 i. Write a python program to read an entire text file. **3**
 ii. Write a python program to count the frequency of words in a file. **7**
- OR iii. Write a python program to write a list to a file. **7**
- Q.5 i. Write a python class to implement pow(x, n). **4**
 ii. Write a python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle. **6**
- OR iii. Explain the concept of inheritance in python with an example. Write a python program for method overriding in python for two level multilevel inheritance. **6**
- Q.6 Attempt any two:
 i. Write a python program to add member(s) in a set. **5**
 ii. Write a python program to create a union of sets. **5**
 iii. Write a python program to remove duplicates from a list. **5**

Marking Scheme OE00018 Python Essentials

Q.1	i.	Which of the following is invalid? Answer: d)none of these	1						
	ii.	Which of the following is not a keyword? Answer: a)eval	1						
	iii.	What will be the output of the following code : print type(type(int)) Answer: c) Error	1						
	iv.	What is the output of the following code? def change(one, *two): print(type(two)) change(1,2,3,4) Answer: b)Tuple	1						
	v.	Which of the following statements are true? Answer:d)All of these	1						
	vi.	To read the next line of the file from a file object infile, we use Answer:c)infile.readline()	1						
	vii.	Methods of a class that provide access to private members of the class are called as _____ and _____ Answer: a)getters/setters	1						
	viii.	What is the biggest reason for the use of polymorphism? aAnswer: c)The program will have a more elegant design, and will be easier to maintain and update	1						
	ix.	When will the else part of try-except-else be executed? Answer: c)when no exception occurs	1						
	x.	What is the output of the following code? a=[13,56,17] a.append([87]) a.extend([45,67]) print(a) Answer: a) [13, 56, 17, [87], 45, 67].	1						
Q.2	i.	What is the output of print str * 2 if str = 'Hello World!'? Answer: Output: Syntax error	2						
	ii.	Write a python script to display the current date and time.	3						
	iii.	Write a Python program which accepts the radius of a circle from the user and compute the area. Read radius: 01 marks Compute area: 02 marks Print: 02 marks	5						
OR	iv.	Write a Python program which accepts the user's first and last name and print them in reverse order with a space between them. Read Input: 02 Marks Adding Space: 01 Marks Print output: 02 Marks	5						
Q.3	i.	Write a Python function to find the Max of three numbers. Declare Function: 01 Marks Calling function: 01 Marks	2						
	ii.	Write a Python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument. Declare Function: 02 Marks Calculate Factorial: 03 Marks Calling function: 03 Marks	8						
OR	iii.	Write a Python function that accepts a string and calculate the number of upper case letters and lower case letters. Declare Function: 02 Marks Input String: 01 Marks Calculate upper string: 01 Marks Calculate lower string: 01 Marks Calling function: 03 Marks	8						
Q.4	i.	Write a Python program to read an entire text file.	3						
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OR	iii.	Write a Python program to write a list to a file.	7						
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	ii.	Write a Python class named Circle constructed by a radius two methods which will compute the area and the perimeter of a	3 6						

circle. **3**
OR iii. Explain the concept of Inheritance in python with an example. **6**
Write a python program for Method overriding in python.

Q.6 Attempt any two:
i. Write a Python program to add member(s) in a set. **5**
ii. Write a Python program to create a union of sets. **5**
iii. Write a Python program to remove duplicates from a list. **5**
