Total No. of Questions: 6 *Total No. of Printed Pages:3*

Enrollment No.....

Faculty of Engineering

End Sem (Even) Examination May-2022

IT3CO16 Computer Programming -III

Programme: B.Tech. Branch/Specialisation: IT

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 the output of below Python expressions? **1**

2**3**2

(a) 64 (b) 512 (c) 256 (d) 12

ii. Which of the following is not feature of Python? **1**

(a) Portable (b) High level language

(c) Interpreted language (d) None of these

iii. Which keyword is used for function in Python language? **1**

(a) define (b) def (c) fun (d) function

iv. NumPy stand for? **1**

(a) Numerical Python (b) Num Python

(c) Numerical Py (d) None of these

v. Which of the following statements is used to create an empty set in Python? **1**

(a) [ ] (b) ( ) (c) { } (d) set( )

vi. What data type is the object below? **1**

L = [1, 23, 'hello']

(a) Tuple (b) List (c) Set (d) Dictionary

vii. Which of the following is not the concept of Object-Oriented Programming? **1**

(a) Class (b) Polymorphism

(c) Inheritance (d) None of these

viii. Which of the following is not the type of Inheritance in python? **1**

(a) Single (b) Multilevel

(c) Hierarchical (d) None of these

P.T.O.

	ix.	What does math.sqrt(x) do ? (a) Calculate square of x (b) Calculate square root of x (c) Calculate both square and square root of x (d) None of these	**1**
	x.	When is the finally block executed? (a) When there is no exception (b) When there is an exception (c) Only if some condition that has been specified is satisfied (d) Always	**1**
Q.2	i.	Write any four differences between python 2 and python 3.	**2**
	ii.	Write in brief any six feature in python.	**3**
	iii.	Explain different arithmetic operators supported by Python with examples.	**5**
OR	iv.	Explain different Loops available in python with appropriate examples.	**5**
Q.3	i.	What are lambda functions in Python? Write its feature	**4**
	ii.	Write a program in python to generate Fibonacci number series using recursion.	**6**
OR	iii.	Explain any 6 ways to create arrays in NumPy?	**6**
Q.4	i.	Differentiate between read( ) and readlines( ).	**4**
	ii.	Write a program to Use List comprehension to create a list of all numbers between 1 and 50 that are divisible by 3.	**6**
OR	iii.	Compare List and Tuple.	**6**
Q.5	i.	Write a Python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle.	**4**
	ii.	Explain default and parameterized constructor in python with example?	**6**
OR	iii.	Difference between Method Overloading and Method Overriding in Python.	**6**

Q.6		Attempt any two:	
	i.	How to handle an exception using try except block? Explain with the help of a program.	**5**
	ii.	Explain various Python Built-in Exceptions.	**5**
	iii.	Explain the working of any five functions that are provided by Math Module with the help of Program.	**5**

******

Marking Scheme
IT3CO16 Computer Programming -III

Q.1	i.	Which of the following is the output of below Python expressions? 2**3**2 (b) 512		**1**
	ii.	Which of the following is not feature of Python? (d) None of these		**1**
	iii.	Which keyword is used for function in Python language? (b) def		**1**
	iv.	NumPy stand for? (a) Numerical Python		**1**
	v.	Which of the following statements is used to create an empty set in Python? (d) set( )		**1**
	vi.	What data type is the object below? L = [1, 23, 'hello'] (b) List		**1**
	vii.	Which of the following is not the concept of Object-Oriented Programming? (d) None of these		**1**
	viii.	Which of the following is not the type of Inheritance in python? (d) None of these		**1**
	ix.	What does math.sqrt(x) do ? (b) Calculate square root of x		**1**
	x.	When is the finally block executed? (d) Always		**1**
Q.2	i.	Python 2 Python 3	1 Mark 1 Mark	**2**
	ii.	Each feature	0.5 Mark each (0.5 Mark*6)	**3**
	iii.	List arithmetic operators Explain with examples	1 Mark 4 Marks	**5**
OR	iv.	While loop For loop	2.5 Marks 2.5 Marks	**5**
Q.3	i.	Lambda functions Feature	2 Marks 2 Marks	**4**
	ii.	Python program Fibonacci number series using recursion	6 Marks	**6**
OR	iii.	Each function	1 Mark each (1 Mark*6)	**6**
Q.4	i.	Read ( ) Readlines ( )	2 Marks 2 Marks	**4**
	ii.	Program using list comprehension	6 Marks	**6**
OR	iii.	List Tuple.	3 Marks 3 Marks	**6**
Q.5	i.	Program compute area Program compute perimeter	2 Marks 2 Marks	**4**
	ii.	Default constructor Parameterized constructor	3 Marks 3 Marks	**6**
OR	iii.	Method Overloading Method Overriding	3 Marks 3 Marks	**6**
Q.6		Attempt any two:		
	i.	Description Program	2 Marks 3 Marks	**5**
	ii.	List Built-in Exceptions Description	2 Marks 3 Marks	**5**
	iii.	Each function	1 Mark each (1 Mark*5)	**5**

******