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DAYANANDA SAGAR COLLEGE OF ENGINEERING*(An Autonomous Institute Affiliated to VTU, Belagavi)***UG Makeup Examination, June/July 2018****Course: Python Scripting****Code: TE663**

Maximum marks: 100

Duration: 3 hours

Answer five full Questions. All questions carry equal marks

- | | | Marks |
|---|----------------------------------------------------------------------------------------------------------------------|-------|
| 1 | a Compare machine language, assembly language and high-level language. | 10 |
| | b What are the differences between C and Python? | 05 |
| | c Briefly discuss about the types of decision making statement. | 05 |
| | (OR) | |
| 2 | a What are mutable and immutable objects? | 05 |
| | b Define operator. Discuss arithmetic, assignment, comparison and bitwise operators with examples. | 10 |
| | c Discuss the importance of indentation in python. | 05 |
| 3 | a Discuss the Qualities of a good algorithm. | 05 |
| | b Discuss Random Access and Contiguous Memory. | 05 |
| | c Write an algorithm to sort a list of numbers in ascending order. | 10 |
| | (OR) | |
| 4 | a Discuss Traversal, Searching and Replacement operations on Singly Linked Structures. | 10 |
| | b What are two-dimensional arrays or grids? | 05 |
| | c Discuss Noncontiguous Memory and Nodes. | 05 |
| 5 | a Discuss applications of queues. | 10 |
| | b With the help of neat diagram explain architecture of a run-time environment. | 10 |
| | (OR) | |
| 6 | a Discuss Index-Based Operations, Content-Based Operations, Position-Based Operations with reference to python list. | 10 |
| | b Define stack class in python to operate on stack of numbers. | 05 |
| | c Discuss any 2 Common Applications of Binary Trees. | 05 |
| 7 | a Discuss Classes and Objects with suitable examples? | 10 |
| | b Give three reasons why interfaces are separated from implementations. | 05 |
| | c Write a Python program to overload '+' operator. | 05 |
| | (OR) | |
| 8 | a Define abstraction and encapsulation with suitable example. | 05 |
| | b What is Polymorphism? Discuss with an example. | 10 |
| | c List few application areas of OOP technology. | 05 |

- 9 a What are Access Specifiers? Discuss the different access specifiers with reference to object oriented programming. 10
b Write a Python program to implement the concept of multi-level inheritance. 10
(OR)
- 10 a Explain the feature of Inheritance. 05
b What are the differences between Abstract Base Class and Interface? 05
c Explain the following concepts of object oriented programming in detail with an example. 10
i) Data abstraction
ii) Inheritance



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DAYANANDA SAGAR COLLEGE OF ENGINEERING*(An Autonomous Institute Affiliated to VTU, Belagavi)***UG Semester End Examination, May 2018****Course: Python Scripting****Code: TE663**

Maximum marks: 100

Duration: 3 hours

Answer five full Questions. All questions carry equal marks

- | | | Marks |
|---|----------------------------------------------------------------------------------------------------------------------|-------|
| 1 | a Compare machine language, assembly language and high-level language. | 10 |
| | b Illustrate the flow chart of if-elif- else statements. | 05 |
| | c What are mutable and immutable objects? | 05 |
| | (OR) | |
| 2 | a What are the different Loops available in python? | 05 |
| | b Define operator. Discuss arithmetic, assignment, comparison and bitwise operators with examples. | 10 |
| | c Give the differences between recursion and iteration with suitable examples. | 05 |
| 3 | a Write a python program to search a specific value from a given list of values using binary search method. | 10 |
| | b Discuss the Qualities of a good algorithm. | 05 |
| | c Discuss Static Memory and Dynamic Memory with appropriate examples. | 05 |
| | (OR) | |
| 4 | a Discuss Singly Linked Structures and Doubly Linked Structures. | 10 |
| | b Write a program for decreasing the size of an Array. | 05 |
| | c Explain why insertion sort works well on partially sorted lists. | 05 |
| 5 | a Discuss any 4 stack operations. | 10 |
| | b Discuss Index-Based Operations, Content-Based Operations, Position-Based Operations with reference to python list. | 10 |
| | (OR) | |
| 6 | a What is the difference between a perfectly balanced binary tree and a complete binary tree? | 05 |
| | b Define stack class in python to operate on stack of numbers. | 05 |
| | c With the help of neat diagram explain architecture of a run-time environment. | 10 |
| 7 | a Discuss Classes and Objects with suitable examples? | 10 |
| | b Highlight the importance of using <code>__init__</code> special method. | 05 |
| | c List few application areas of OOP technology. | 05 |
| | (OR) | |
| 8 | a Define abstraction and encapsulation with suitable example. | 05 |
| | b List out the difference between object oriented programming and procedure oriented programming. | 05 |

c What is Polymorphism? Discuss with an example. 10

9 a What are Access Specifiers? Discuss the different access specifiers with reference to object oriented programming. 10

b Explain the following concepts of object oriented programming in detail with an example. 10

i) Data abstraction

ii) Inheritance

(OR)

10 a Explain the feature of Inheritance. 05

b What are the differences between Abstract Base Class and Interface? 05

c Discuss different types of inheritance with example. 10

29/05/2018 08:20:06 am

DAYANANDA SAGAR COLLEGE OF ENGINEERING

(An Autonomous Institute Affiliated to VTU, Belagavi)
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UG Makeup Examination, July 2019

Course: **Python Scripting**
Course Code: **TE663**
Semester: **VI**

Maximum marks: 100**Duration: 03 hours**

Note: i). Question ONE (a to t) has to be answered from pages 5 to 7 only.
ii). Question 1 to 4 is compulsory.
iii). Any missing data should be suitably assumed.

Q. No.		Marks
1	a) Mention type conversion with example.	01
	b) Define indentation.	01
	c) What do you mean by greater.isupper() ?	01
	d) Define Dictionaries.	01
	e) Represent three external links to singly linked structures.	01
	f) Define probe.	01
	g) Where does probe will be pointing after termination?	01
	h) Where does head will be pointing after termination?	01
	i) Define stack.	01
	j) Mention the state of queue when front pointer and rear pointer is pointing.	01
	k) In infix to postfix conversion algorithm, the operators are associated from.	01
	l) Which of the data structure is used to convert postfix expression to infix expression?	01
	m) Define Exception.	01
	n) Represent a class diagram with an interface and two implementing classes.	01
	o) Define the run time preformation of two bagger implementation.	01
	p) Explain remove method in Bag implementation.	01
	q) What do you mean by _eq_ method?	01
	r) Define _add_ method.	01
	s) Define Bag interface.	01
	t) Define Abstract collection.	01



- 2 a) Define operator. Discuss arithmetic, assignment, comparison and bitwise operators with examples 08
b) Compare machine language, assembly language and high-level language. 08
- 3 a) Discuss Singly Linked Structures and Doubly Linked Structures. 08
b) Write a python program to search a specific value from a given list of values using binary search method. 08
- 4 a) Discuss Index-Based Operations, Content-Based Operations, Position-Based Operations with reference to python list. 08
b) Discuss any 4 stack operations. 08
- 5 a) Highlight the importance of using `__init__` special method. 08
b) Discuss Classes and Objects with suitable examples. 08
- OR**
- 6 a) List out the difference between object oriented programming and procedure oriented programming. 06
b) What is Polymorphism? Discuss with an example. 10
- 7 a) Explain the following concepts of object oriented programming in detail with an example.
i) Data abstraction ii) Inheritance 08
b) What are Access Specifiers? Discuss the different access specifiers with reference to object oriented programming. 08
- OR**
- 8 a) Explain the features of Inheritance. 08
b) Discuss different types of inheritance with example. 08