Code No: 153BK **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech II Year I Semester Examinations, December - 2019
OBJECT ORIENTED PROGRAMMING USING C++
(Common to CSE, IT)

Time: 3 Hours **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

1.a)	Define arrays. Give example.	[2]
b)	Write about Class structure.	[2]
c)	Define class hierarchy.	[2]
d)	Define I/O using C functions.	[2]
e)	Write about Catching.	[2]
f)	Give the features of C that are not in C++.	[3]
g)	What is the use of scope resolution operator in C++?	[3]
h)	What are the virtual functions.	[3]
i)	Differentiate between function overloading and function templates.	[3]
j)	Discuss about try block.	[3]

PART – B

(50 Marks)

2.	What is polymorphism? Explain with the help of an example.	[10]
	OR	
3.a)	Write a program to find whether the given number is a palindrome or not.	
b)	Explain about the Type conversion with an example.	[5+5]
4.a)	How can we create a class and an object? Explain with an example.	
b)	Explain about data abstraction.	[5+5]
	OR	
5.a)	In which order the constructors and destructors are executed? Explain with an example.	
b)	Discuss about Static class members.	[5+5]
6.a)	How virtual functions can be used to implement runtime polymorphism? Describe.	
b)	Differentiate between static and dynamic binding with an example.	[5+5]
	OR	
7.a)	Describe the mechanism of creating virtual functions in C++ with an example.	
b)	How to create a virtual destructor? What is the necessity of making it virtual?	[5+5]

8. Write a program to implement the operator loading concept by using unary operator. [10]

OR

9.a) Discuss briefly about Error handling during file operations.
b) Describe about Formatted I/O. [5+5]

10. Write a C++ program that illustrates exception handling with the help of keywords: try, throws and catch. [10]

OR

11.a) Write a C++ program that catches any math exception.
b) Discuss about Exception specifications. [5+5]

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