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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute)

Affiliated to Dr. A.P. J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

Course B.Tech Branch CSBS

Semester: III   Sessional Examination: - III   Year- (2021 - 2022)

Subject Name: OBJECT ORIENTED PROGRAMMING

Time: 1.15Hours   [SET- B]   Max. Marks:30

General Instructions:

➤ This Question paper consists of 2 pages & 5 questions. It comprises of three Sections, A, B, and C
➤ Section A -Question No 1 is objective type questions carrying 1 mark each, Question No- 2 is very short answer type carrying 2 mark each. You are expected to answer them as directed.
➤ Section B - Question No-3 is Short answer type questions carrying 5 marks each. Attempt any two out of three questions given.
➤ Section C -Question No. 4 & 5 are Long answer type (within unit choice) questions carrying 6marks each. Attempt any one part *a or b.*
➤ Program must be written in C++

		SECTION – A	[08Marks]	
1.		All questions are compulsory	(4×1=4)	
	a.	Which of the following operator can be overloaded? 1. += 2. :: 3. sizeof() 4. ?:	(1)	CO4
	b.	In class diagram, protected access mode is represented by 1. + 2. - 3. # 4. protected	(1)	CO5
	c.	Identify the append file opening mode 1. ios::app 2. ios::modify 3. ios::update 4. ios::ate	(1)	CO5
	d.	Which keyword is used to throw an exception? 1. try 2. throws 3. throw 4. catch	(1)	CO4
2.		All questions are compulsory	(2×2=4)	
	a.	Explain the function of setfill() and setprecision() manipulator.	(2)	CO5

	b.	Define actor and draw its symbol.	(2)	CO5
		SECTION – B	[10Marks]	
3.		**Answer any <u>two</u> of the following-**	(2×5=10)	
	a.	Write a program to implement insertion sort using class template.	(5)	CO4
	b.	Write a program to store factorial of a number in a file	(5)	CO5
	c.	Explain the importance of virtual function with the help of a program	(5)	CO4
		SECTION – C	[12Marks]	
4		**Answer any <u>one</u> of the following-**	(1×6=6)	
	a.	What is the difference between function template and class template? And write a program to implement function template.	(6)	CO4
	b.	What is Class diagram and Activity diagram? Draw class diagram for multiple level inheritance.	(6)	CO5
5.		**Answer any <u>one</u> of the following-**	(1×6=6)	
	a.	What is file mode? Describe the various file mode options available.	(6)	CO5
	b.	What do you mean by operator overloading? Write a program to create a class complex and overload * operator to add two complex numbers. And test the result.	(6)	CO4