Code No: R2021051 (R20) (SET - 1

## II B. Tech I Semester Regular Examinations, Feb/March - 2022 OBJECT ORIENTED PROGRAMMING THROUGH C++

(Com to CSE, IT)

Tir	ne: 3	(Com to CSE, 11)  B hours  Max. Marks: 70				
		Answer any FIVE Questions each Question from each unit	-			
		All Questions carry <b>Equal</b> Marks				
1	a)	Differentiate between Object Oriented Programming and Procedural Oriented Programming.	[7M]			
	b)	Explain Advantages of Object Oriented Programming.	[7M]			
		Or				
2	a)	Explain the key concepts of Object Oriented Programming.	[7M]			
	b)	Differentiate between C and C++.	[7M]			
	,					
3	a)	<ul><li>Explain the following with an example.</li><li>i. Scope resolution operator</li></ul>	[7M]			
		ii. Compound Assignment operator				
	b)	iii. Type cast operator Write a C++ program using function overloading to find the area of a Rectangle,	[7M]			
	U)	Square.	[/1 <b>V1</b> ]			
		Or				
4	a)	class Student	[7M]			
		{ private:				
		char regdno[10],name[30];				
		int marks;				
		public: void setDetails() int getMarks()				
		{				
		, ,				
		} main()				
		{				
		Complete the above program to find the average of marks for 10 students.				
	b)	What is a Constructor? Discuss various constructors with examples.	[7M]			
5	a)	Explain about multi level inheritance with an example.				
	b)	Explain about material level inheritance with an example.				
		cannot be overloaded.				
_		Or				
6	a)	Explain about protected inheritance with an example.	[7M]			
	b)	What is operator overloading? Write a program for overloading unary plus operator.	[7M]			

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7	a)	a) What are the rules for Virtual functions? What is the importance of Virtual Destructor?						
	b)							
		Or						
8	a)	Analyze the following code and find the output and justify your answer						
		{ public: provide f1() volume f2() provide f2() { cout << "A::f2" << { provide f2() provide f2() provide f2() { cout << "A::f2" << { provide f2() provide f2() { cout << "A::f2" << { provide f2() provide f2()	oublic: roid f1() cout << "B::f1" << ndl; } rirtual void f2() cout << "B::f2" << ndl; }	<pre>class C: public B { public: void f1() { cout &lt;&lt; "C::f1" &lt;&lt; endl; } void f2() { cout &lt;&lt; "C::f2" &lt;&lt; endl; } };</pre>				
	b)	Explain in detail about <i>this</i> pointer to base class and derived class.						
9	a)	write a random template to perform buddle sort.						
	b)							
		Or						
10	a)	Discuss various exception handling mechanisms.						
	b)	Implement function template to find a given element in the array.  Note: array may be int or float.						