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## Question Paper Code: 52371

## B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

Third Semester

Computer Science and Engineering
CS 2203 – OBJECT ORIENTED PROGRAMMING

(Common to Information Technology)

(Regulations 2008)

(Also common to PTCS 2203 – Object Oriented Programming for B.E. (Part-Time)

Third Semester – CSE – Regulations 2009)

Time: Three Hours

Maximum: 100 Marks

## Answer ALL questions

PART - A

 $(10\times2=20 \text{ Marks})$ 

- What is an abstract class?
- 2. What are the advantages of object oriented programming?
- 3. List any four properties of constructor.
- 4. What are the operators that cannot be overloaded?
- 5. Define template.
- 6. How is an exception handled in C++?
- 7. What are the visibility modes in inheritance?
- 8. Define virtual function.
- 9. How do you classify ios class?
- 10. Differentiate between random access and sequential access.



		PART – B (5×16=80 Mar	cks)
11.	a)	Explain the features of object oriented programming with example.  (OR)	(16)
	b)	) i) What are the rules to be followed in function overloading in C++?	(4)
		ii) Write a C++ program to find the area of the square, rectangle, circle and sphere using function overloading.	(12)
12.	a)	i) What are the various types of constructors? Illustrate with example.	(12)
		ii) Explain the use of destructor with an example.	(4)
		(OR) German on speciment of the contract of th	
	b)	i) Write a C++ program to add two complex numbers using operator overloading.	(10)
;		ii) What is friend function and explain with an example.	(6)
13.	a)	i) Write a class template to implement a stack.	(8)
		ii) Write a function template for finding the minimum value contained in an array.	(8)
		(OR)	
	b)	Write a C++ program that illustrates multiple catch statements.	16)
14.	a)	Explain different types of inheritance with suitable example.	16)
,		(OR)	
	b)	i) Explain the need for pure virtual functions.	(4)
		ii) What is manipulators? Differentiate manipulators and ios functions.	
l <b>5.</b>	a)	Write a C++ program to store set of objects in a file and to retrieve the same. (OR)	16)
	b)	i) Highlight the features of STL.	(8)
		ii) Explain the stream classes for file operations with suitable diagram.	(8)