B.TECH. DEGREE VI SEMESTER EXAMINATION IN
COMPUTER SCIENCE AND ENGINEERING
NOVEMBER 2001

CS 602 OBJECT ORIENTED PROGRAMMING AND DESIGN
(1998 Admissions)

Time: 3 Hours   Maximum Marks: 100

I.		Describe the evolution of Programming Language Paradigms.	(20)
		OR	
II.	(a)	Explain the benefits of Object-Oriented programming over Procedure-Oriented Programming.	(10)
	(b)	What is generic programming? Explain how it is used in C++.	(10)
III.	(a)	Explain Physical Packaging. How it is useful in Software design?	(10)
	(b)	What are associations? Explain.	(10)
		OR	
IV.		Explain the different steps involved in Object-Oriented Design process.	(20)
V.		Explain the features of Object-Oriented Programming languages.	(20)
		OR	
VI.	(a)	Differentiate Object-Oriented and Object-Based Programming languages. Give examples.	(5)
	(b)	What is an abstract class? How it is different from a class?	(5)
	(c)	What is a robust method? Describe the Object-Oriented style guidelines under robustness category.	(10)
VII.	(a)	What is a friend function? Explain the merits and demerits of using friend functions.	(10)
	(b)	Explain Constructors and Destructors with examples.	(10)
		OR	
VIII.	(a)	Create a class called "bank-account" that contains name of depositor, account No., type of account and balance amount in the account. Include member functions deposit an amount, to withdraw an amount after checking the balance, and to display name and balance. Write a main ( ) program to create an array of type "bank-account" and then invite the user to input data for upto 100 depositors. Finally, it should print out the data for all the depositors.	(15)
	(b)	What is a composite class? Explain.	(5)
IX.		Implement the logical, arithmetic and assignment operators for a class called 'complex' having real and imaginary parts.	(20)
		OR	
X.	(a)	Explain the concept of virtual functions with suitable examples.	(10)
	(b)	What is a function template? How it is different from function overloading? Explain.	(10)

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