B.E.(with Credits)-Regular-Semester 2012 - Computer Technology Sem IV CT405 - Object Oriented Methodologies

P. P Tim	Pages : ne : Th	2 ree Hours $\star 4 \circ 1 \circ \star$	GUG/W/16/3885 Max. Marks : 80
	Note	 All questions carry equal marks. Due credit will be given to neatness and adequate dimensions. Assume suitable data wherever necessary. 	
1.	a)	Write a program to create a class vehicle consisting of following Data members : Type (ex: car, bike etc) ow cost	8 ner, vehicle no,
		Member functions: Void getdetails (Char,* Char,* Char,* float) Void putdetails (void) using the concept of array of objects	
	b)	List characteristics of static data members along with its implementation.	8
		OR	
2.	a)	Write a program to create a class time, assume suitable data members and m along with void sum (time, time) using the concept of object as function as	nember functions 8 rguments.
	b)	Differentiate between OOP and POP based on its features.	8
3.	a)	Write suitable code to demonstrate the concept of encapsulation.	8
	b)	Write a program to add two complex numbers using the concept of Binary overloading with friend.	operator 8
		OR	
4.	a)	Write a program to convert one class type to another class type.	8
	b)	Write a program to overload unary minus operator.	8
5.	a)	Define Inheritance and explain different types of inheritance.	8
	b)	Define two base class Alpha and Beta and derived class Gamma impl concept of constructor in derived class.	ement using the 8
		OR	

6. a) Create class Rectangle consisting of length & Breadth. Class area consist of member function float calcarea (void) Class perimeter consist of member function float calipari (void)



b) Implement following inheritance by assuming suitable data members and member functions.



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- 7. a) Explain the rules of writing friend functions and implement it to add square of numbers $(ex: a^2+b^2)$ friend float addsq (sample s).
 - b) Write rules for virtual function in details.

OR

8.	a)	Write a program to compare two student objects and identify the student with higher percentage using the concept of this pointer.	8
	b)	Write a program to implement the concept of Dynamic type information.	8
9.	a)	Write a program to perform writing, reading and counting number of lines is a txt file.	8
	b)	Implement code for class template.	8
		OR	

- **10.** a) Write a program to perform write, read and modify record of class student on Binary file. **8**
 - b) Explain the concept of command line argument with suitable program code.

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