B.E. Computer Science & Engineering Sem-III
CS 303 - Object Oriented Programming

P. Pages : 2

Time : Three Hours

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1148

GUG/S/19/1474

Max. Marks : 80

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Notes : 1. Same Answer book must be used for each section.
2. All questions carry equal marks.
3. Due credit will be given to neatness and adequate dimensions.
4. Assume suitable data wherever necessary.

1. a) What are the difference between procedure language and object oriented language? **8**

b) What are the features of object oriented programming language? **8**

OR

2. a) Explain the following manipulator function. **8**
i) setw( )
ii) setfill( )
iii) setprecision( )
iv) endl

b) What is mean by Reference variable? Explain with example. **8**

3. a) Define a function volume to calculate the volume of cube, volume of rectangle and volume of cylinder by using function overloading concept. **8**

b) What is array? Explain array of object with example. **8**

OR

4. a) Write a program to swap the value of two variables by using friend function. **8**

b) Write short notes on: **8**
i) calloc( )
ii) malloc( )
iii) vealloc( )
iv) free( )

5. a) What is constructor and destructor? What are rules for creating constructor and destructor? Explain. **8**

b) Write a C++ programme to transpose a 3×3 matrix? **8**

OR

6. a) Explain hierarchical inheritance with suitable program code. **8**

b) What is virtual base class? Explain with program code. **8**

7.	a)	What is "this" pointer? Explain with example.	**8**
	b)	What is pure virtual function? Explain with example.	**8**

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OR

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8.	a)	What is polymorphism? Explain with suitable program code.	**8**
	b)	What is abstract class? Explain with example.	**8**
9.	a)	Write short note on formatted input output function and unformatted input output function.	**8**
	b)	Write a program to copy the contents of one file into another file by using file structure.	**8**

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OR

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10.	a)	What is Template? What are the advantage & disadvantage of Template?	**8**
	b)	What is class template? Explain with example.	**8**

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