

B.E.-Computer Technology Sem IV
CT405 - Object Oriented Methodologies

P. Pages : 2

Time : Three Hours



GUG/S/18/3885

Max. Marks : 80

-
- Notes :
1. All questions carry equal marks.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.

1. a) Write a program to create a class area consisting of suitable data member and two functions for calculating area of circle and rectangle. 8
- b) Write a program to design a calculator that add, multiply, subtract and divide using member functions. 8

OR

2. a) Write a program to demonstrate use of object as function arguments. 8
- b) Write a program to create a class Item that consist of number and cost data members. Assume suitable member functions. 8
3. a) What is garbage collection. List the pros and cons of garbage collection. 8
- b) Write a program to implement Dynamic memory allocation using new and delete operator to allocate memory to Array, objects. Write separate code for both. 8

OR

4. a) Create a class in 1 and in 2 and write suitable function to convert one class object to another class object using the concept of Data conversion. 8
- b) Write suitable code to implement the concept of Binary operator overloading. 8
5. a) Write suitable program code to implement single inheritance as private derivation. 8
- b) Write a program to implement the concept of passing parameters to the Base class constructor via derived class constructor. 8

OR

6. a) Write suitable code to implement function overloading and containership : Classes within classes. Write separate code for both. 8
- b) What is Inheritance? What are the advantages of Inheritance? Explain different types of Inheritance. 8
7. a) Write a program to implement the concept of this pointer. 8

- b) List the rules of static function and write suitable program code to demonstrate the use of static function. **8**

OR

- 8.** a) Write suitable program code to demonstrate the use of pure virtual function. **8**
b) Write a program to demonstrate use of Dynamic cast operator. **8**
- 9.** a) Write a program on command line Argument that takes two files Even and Odd. Program checks the array for the number to be even or odd and stores in specific files. **8**
b) Write a program to handle multiple catch statements. **8**

OR

- 10.** a) Write suitable program code for overloading Extraction and Insertion operator. **8**
b) Explain Error handling in file I/O with the help of program code. **8**
