

IT503 - Object Oriented Programming

P. Pages : 1

Time : Three Hours

**GUG/W/16/3776**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answer wherever necessary with the help of neat sketches.

1. a) Explain the features of object oriented programming in detail ? 8
- b) Write a program in C++ to check number is prime or not using class & object. 8

OR

2. a) Discuss type cast operators & member differentiating operators in C++ ? 8
- b) Justify the need of static members. 8
3. a) Write a C++ program for following type of constructors ? 8
- i) Constructor with default value ii) Copy constructor.
- b) Write a C++ program to implement a stack constructor ? 8

OR

4. a) Explain the concept of array of object. 8
- b) What are static member function. 8
5. a) Explain Friend function in detail. 8
- b) Write a C++ program for binary operator overloading ? 8

OR

6. a) Define a class string ? Use overload == operator to compare two strings ? 8
- b) Explain function overloading as a mechanism of compile time polymorphism. 8
7. a) What are abstract classes ? 8
- b) Write a C++ program to implement multiple inheritance ? 8

OR

8. a) Explain pure virtual function with suitable line of code ? 8
- b) Explain constructors in derived classes ? 8
9. a) Explain class templates in C++ ? 8
- b) Write a program in C++ to handle a file using command line arguments ? 8

OR

10. a) Write a program for bubble sort using template function ? 8
- b) Explain rethrowing of an exception. 8
