

G 1161

(Pages : 2)

Reg. No.....

Name.....

**B.TECH. DEGREE EXAMINATION, MAY 2016**

**Seventh Semester**

Branch : Electrical and Electronics Engineering

**OBJECT ORIENTED PROGRAMMING—(Elective I) [E]**

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

*Each question carries 4 marks.*

1. What is a reference variable in C++ ? Mention its major use.
2. Differentiate call by value and call by reference with examples.
3. What is "this" pointer ?
4. Why do we declare a member of class static ?
5. List some of the properties of constructor functions.
6. Distinguish between access specifiers private, public and protected.
7. Describe the syntax of multiple inheritance. When do we use such an inheritance ?
8. What is a file mode. Describe the various file mode options available.
9. Write a C++ program to overload unary increment operator.
10. What is dynamic binding ? How is it implemented ?

(10 × 4 = 40 marks)

**Part B**

*Answer all questions.*

*Each question carries 12 marks.*

11. Describe the characteristics of object oriented programming.

*Or*

12. What is function overloading ? What is its advantage ? Write a program to find the sum of the elements of a two dimensional array of integers and floating point numbers with function overloading.

**Turn over**

13. Explain the different types of constructors with examples.

*Or*

14. Create a class called "TIME" that has three integer data members for hours, minutes and seconds, constructor to initialize the object to zero, constructor to initialize the object to some constant value, member function to add two TIME objects, member function to display time in HH : MM : SS format. Write a main function to create two TIME objects, add them and display the result in HH : MM : SS format.

15. Write a C++ program to overload binary operator using friend function.

*Or*

16. Describe function definition, function declaration and function call with suitable examples.

17. Write a C++ program to illustrate the implementation of the concept of virtual base class.

*Or*

18. Explain how read () and write() functions can be used to perform file operation using example.

19. What is the significance of virtual function in C++ ? List the rules for virtual functions.

*Or*

20. Explain how new and delete operators used for dynamic memory management with examples.

(5 × 12 = 60 marks)