KUMARAGURU
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Register Number: …….

B.TECH DEGREE EXAMINATIONS:DEC 2014

(Regulation 2013)

Third Semester

INFORMATION TECHNOLOGY

U13ITT303:Object Oriented Programming With C++

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Which of the following concepts of OOP means exposing only necessary information to client?
   a) Encapsulation b) Abstraction
   c) Data Hiding d) Data Binding
2. Data abstraction refers to _____ and show only the necessary details to the outside world.
3. Which of the following concepts provides facility of using object of one class inside another class?
   a) Encapsulation b) Abstraction
   c) Composition d) Inheritance
4. _____ constructor has no arguments.
5. Which of the following is not a type of constructor?
   a) Copy constructor b) Friend constructor
   c) Default constructor d) Parameterized constructor
6. The mechanism of deriving a new class from an old one is called _____.
7. Which of the following concepts is used to implement late binding?
   a) Virtual function b) Operator function
   c) Const function d) Static function
8. _____ doesn't depend on any data type.
9. Which of the following statements is correct?
   a) Base class pointer cannot point to derived class. b) Derived class pointer cannot point to base class.
   c) Pointer to derived class cannot be created. d) Pointer to base class cannot be created.

10. _____ is a exception that belongs to keyboard interrupts.

PART B (10 x 2 = 20 Marks)

(Not more than 40 words)

11. List the characteristics of OOP.
12. What are the features of Object Oriented Programming?
13. Define parameterized constructor.
14. Define Destructor.
15. Define operator overloading.
16. What are the operators that cannot be overloaded?
17. What is a template? List its types.
18. How can you access the virtual functions?
19. What is meant by a manipulator?
20. Differentiate between file input stream and file output stream.

PART C (5 x 14 = 70 Marks)

(Not more than 400 words)

Q.No. 21 is Compulsory

21. (i) Compare and contrast Structured Programming and Object Oriented Programming. (7)

    (ii) Distinguish between Data Encapsulation and Data Abstraction, with examples. (7)

22. a) (i) Illustrate in detail about Class, Objects, Methods and Messages with sample coding. (7)

    (ii) List the special characteristics of friend function. (7)

(OR)

    b) (i) Write a C++ program to define overloaded constructor to perform string initialization, string copy and string destruction. (7)

    (ii) Demonstrate copy constructor with suitable C++ coding. (7)

23. a) (i) List the rules for overloading operators. (7)

    (ii) Illustrate function overloading with a simple example. (7)

(OR)

b) Investigate the different types of inheritance with suitable example for each one of them.

24. a) Write the syntax for member function template and bring out it in detail write an example.

(OR)

b) Write a C++ program using class template for finding the scalar product for *int* type vector and *float* type vector.

25. a) Discuss in detail Exception Handling Constructors in C++. Write a program to illustrate divide by zero Exception handling.

(OR)

b) (i) Demonstrate the use of any six manipulators with examples. (7)

(ii) Discuss in detail the unformatted I/O operations. (7)

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