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21

29/5/13

B.E. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2013

GEOINFORMATICS ENGINEERING BRANCH

FOURTH SEMESTER

GI 9253 OBJECT ORIENTED PROGRAMING

(Regulation 2008)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. List out any four features of Object Oriented Databases.
2. Enumerate 'Object Oriented Analysis' versus 'Object Oriented design'.
3. What are 'Keywords' and 'Identifiers' in C++?
4. How Polymorphism is achieved at compile time?
5. How is a member function of a class defined?
6. What are the different visibility modes supported by C++?
7. List out any four rules that need to be kept in mind in deciding virtual functions?
8. What are input and output streams in C++?
9. State the use of ODBC.
10. List out any four tasks performed by ADO data control.

Part – B (.5 x 16 = 80 marks)

11. (i) Explain how GIS customization can be used for the district administrators in planning. (8)
(ii) Discuss about the Remote Data Objects. (8)
 12. a) (i) How are data and functions organized in an object-oriented program? (8)
a) (ii) Explain the idea of classes, data abstraction and encapsulation. (8)
- OR**
- b) (i) Describe inheritance as applied to object-oriented program. (8)
 - b) (ii) What do you mean by dynamic binding? How is it useful in OOP? (8)

13. a) (i) Explain with examples on various data types available in C++. (8)
a) (ii) What do you mean by overloading of a function and when do we use this concept? (8)

OR

- b) (i) Write a C++ program to read a matrix of size $m \times n$ from the keyboard and display the same on the screen using functions. (8)
b) (ii) 'The effect of a default argument can be alternatively achieved by overloading'. Discuss with an example. (8)
14. a) (i) Write a C++ program to demonstrate the concept of constructor overloading. (8)
a) (ii) Explain what happens to the public, protected and private members of a base class when it is privately and publicly inherited by derived class? (8)

OR

- b) Create two classes *DM* and *DB* which store the value of distances. *DM* stores distances in metres and centimeters and *DB* in feet and inches. Write a C++ program that can read value for the class objects and add one object of *DM* with another object of *DB*. Use a friend function to carry out the addition operation. The object that stores the results may be a *DM* object or *DB* object, depending on the units in which the results are required. The display should be in the format of feet and inches or metres and centimeters depending on the object on display. (16)
15. a) (i) Write a C++ program, which initializes a string variable to the content "Time is a great teacher but unfortunately it kills all its pupils. Berlioz" and outputs the string to the disk file OUT.TXT. You have to include all the header files if required. (8)
a) (ii) What are the steps involved using a file in a C++ program? (8)

OR

- b) (i) What are the different forms of inheritance? Explain each with an example. (10)
b) (ii) Describe the various file mode options available in C++. (6)