Roll No _____

Examination May-2014
Object oriented programming using C++
Subject Code: CS 252
B.Tech
Paper ID-A0304

Time allowed: 03 Hours   Max. Marks: 60

Instruction to Candidates:

1. Section A is compulsory
2. Attempt any four questions from Section B
3. Attempt any two questions from Section C

SECTION A

1. Answer the following questions   (10×2=20)
   a. Define object.
   b. What is function overloading?
   c. Describe the importance of destructors.
   d. What are the advantages of using new operator as compared to the function malloc()?
   e. What is run time polymorphism?
   f. What is function template?
   g. What is output stream?
   h. What is abstract class?
   i. What is derived class?
   j. Explain control structures.

SECTION B

(4×5=20)

2. Distinguish between data abstraction and encapsulation.
3. What is constructor? Is it mandatory to use constructors in a class?
4. When do we make a virtual function "pure"? What are the implications of making a function a pure virtual function?
5. What is a file mode? Describe the various file mode options available.
6. What do you mean by information hiding? Explain with an example.

SECTION C

(2×10=20)

7. a. What are the different forms of inheritance? Give an example for each.
   b. Create a base class named Rectangle that includes data members for the length and width of a Rectangle, as well as functions to assign and display those values. Derive a class named Block that contains an additional data member to store height and contains functions to assign and display the height. Write a main() function that demonstrates the classes by instantiating and displaying the values for both a Rectangle and a Block.
8. What is generic programming? Write a function template for finding the minimum value contained in an array.
9. Write a program that reads a text file and creates another file that is identical except that every sequence of consecutive blanks are replaced by a single space.

——— End ———