C/15/BCA/4ᵗʰ Seme.(N)/2201

NEW

2015

BCA

4th Semester Examination

OOPS USING C++

PAPER—2201

Full Marks : 100

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. *1* and any *four* from the rest.

1. Answer any *five* questions :   5×2

   (a) What is object-oriented programming ?

   (b) What do you mean by dynamic binding ?

   (c) Write the difference between objects and classes.

   (d) What is recursion ?

   (e) What is logical operator ? Express it.

   (f) What is polymorphism ?

   (g) What do you mean by reference variable ?

2. (a) What is operator overloading ? Why is it necessary to overload an operator ?   4+3

   (b) Write a program in C++ where friend function is used ?   8

3. What are the advantages of OOP? Write the difference between inheritance and polymorphism. What are member functions? 5+6+4

4. (a) Write a C++ program to calculate number of vowels in a inputted string.

   (b) What is cascading of I/O operators? What is static variable?

   (c) Why do we need the # include <iostream.h>? Illustrate with an example, how the setw manipulator works? 5+(2+2)+(3+3)

5. (a) Describe the different styles of writing function prototypes.

   (b) When we make a function inline?

   (c) What do we mean by overloading of a function? When do we use this? 4+3+(4+4)

6. (a) When scope resolution operator :: in C++ is used? Describe the extraction operator. 5+3

   (b) Write a C++ program where an object is returned to another function. 7

7. Write short notes on the following (any *three*) : 3×5

   (a) Friend function.

   (b) Structured programming.

   (c) Constructors.

   (d) Inheritance.

   (e) Data hiding in classes.

[Internal Assessment — 30]