

BACHELOR OF INFORMATION TECHNOLOGY

00769
69200

Term-End Examination

June, 2010

CSI-24 : OBJECT ORIENTED PROGRAMMING

Time : 2 hours

Maximum Marks : 60

Note : There are two sections in this paper. All questions from Section-A are compulsory. Answer any two questions from Section-B.

SECTION - A

1. State whether following statements are *true* or *false* : 5
- (a) Constructor can have void as return type
 - (b) By default all the members of struct are private
 - (c) When arguments are passed by value, the function works with the original arguments in the calling program.
 - (d) Function can return more than one value
 - (e) In C++, default storage class of a variable is auto.

2. Distinguish between the following C++ constructs : 3x5=15
- (a) Constructor and function
 - (b) Variable and static variable
 - (c) This and super
3. (a) Write a program in C++ that will generate the list of all the prime numbers upto a given no. 5
- (b) Differentiate between struct and Union with example. 5

SECTION - B

1. Identify classes and draw inheritance hierarchy for "Student Management System" for management institute. The system should deal with the following : 15
 - (a) It should hold information of all the students got enrolled for a course.
 - (b) For each course, it should display the numbers of students present for a given month.
 - (c) For each course, it should allocate the faculty for different subjects.

Make necessary assumptions wherever required. Justify your design.

2. Explain the following concepts with example program : 5x3=15
 - (a) Abstract class
 - (b) Friend function
 - (c) Inline function

3.
 - (a) Write a program in C++ to find the reverse of given number e.g reverse of 4132 is 2314. 6
 - (b) Explain the following concepts : 9
 - (i) Encapsulation
 - (ii) Multiple inheritance
 - (iii) Polymorphism