Karunya University
(Karunya Institute of Technology and Sciences)
(Declared as Deemed to be University under Sec.3 of the UGC Act, 1965)

End Semester Examinations - 2015-16 Even Semester - May 2016

14CS2035 Object Oriented Programming in C++

Set B

Time : 3 hrs
Total Marks: 100

1. a. Explain the features of object oriented programming. (10 Marks)

   b. Write appropriate sample code to demonstrate break, continue and goto statements used in C++. (10 Marks)

OR

2. a. Create the equivalent of a four-function calculator. The program should ask the user to enter a number, an operator, and another number. (Use floating point.) It should then carry out the specified arithmetical operation: adding, subtracting, multiplying, or dividing the two numbers. Use a switch statement to select the operation. Finally, display the result. When it finishes the calculation, the program should ask whether the user wants to do another calculation. The response can be „y" or „n". (12 Marks)

   b. List out any five escape sequence characters with sample code. (8 Marks)

3. a. Explain the relational and logical operators with sample code. (10 Marks)

   b. Write a program in C++ to do the following operations in a n x n matrix (10 Marks).
   (i) Matrix Addition
   (ii) Matrix Multiplication

OR

4. a. Explain the various control statements in C++ with sample code. (12 Marks)

   b. Write a C++ program to provide grades for the students according to their mark obtained out of 100. (8 Marks)

5. a. Create an employee class and its member data should comprise an int for storing the employee number and a float for storing the employee"s compensation. Member functions should allow the user to enter this data and display it. Write a main() that allows the user to enter data for three employees and display it. (10 Marks)

   b. Create a student time table using 2 dimensional arrays. where the following operation need to be done, (10 Marks)
   (i) Subject on a particular hour and day.
   (ii) Free hours of a day.
   i (iii) Subject schedule on all days.

OR

6. a. Write a program in C++ to overload any three operators. (12 Marks)

   b. List out the functions that are used in finding, modifying and comparing string object with suitable snippet. (8 Marks)

7. a. Explain the various types of inheritance with sample code. (12 Marks)

   b. Create a class called "Student" with Regno and Cgpa as members. Write a friend function called compare which gets two students object as input and returns highest Cgpa of the student. Write a main function to demonstrate the above scenario. (8 Marks)

OR

8. a. Create a class named realestate that has data members to hold the price of a house. The number of bedrooms, and the number of baths. Member functions include insertion and extraction functions. Write a main() function that instantiates a real estate object, allows the user to enter data, and displays the data members entered. The main() function should display an appropriate thrown error message if negative values are entered for any of the data members. (10 Marks)

b. Why do we prefer virtual base class? Demonstrate that with suitable example. (10 Marks)

9. a. Explain class template and function template with sample code. (10 Marks)

b. Write a program in c++ to copy a file from one location to another. (10 Marks)

Wishing you All the Best
