3E1654

Roll No. _____ [Total No. of Pages : 3

3E1654

B.Tech. III Semester (Main/Back) Examination, Dec.- 2016
Computer Sc. & Engg.
3CS5A Object Oriented Programming
EE,EX,CS,IT

Time : 3 Hours **Maximum Marks : 80**

Min. Passing Marks : 26

Instructions to Candidates:

*Attempt any **five** questions, selecting one question from **each unit**. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.*

Unit - I

1. a) What are the difference between homogeneous and heterogeneous data type? What are the features of structure? **(8)**

b) Write any program to pass the structure to a function. Explain each and every step in detail. **(8)**

OR

1. Create a structure to specify data of customers, in a bank. The data to be stored is: Account number, Name, Balance in account. Assume maximum of 20 customers in the bank.

a) Write a function to print the account number and name of each customer with balance below Rs. 100.

b) If a customer request for withdrawal or deposit, it is given in the form :

Acct. no, amount, code (1 for deposit, 0 for withdrawal) write a program to give a message, "The balance is insufficent for specified withdrawal". **(16)**

Unit - II

2. a) How do structures in C and C++ differ? **(8)**

b) Explain container class and proxy classes in detail. **(8)**

tp://questionpaperesult.co

OR

2. a) Describe the mechanism of accessing data members and member functions in the following case :

   i) Inside the main program.

   ii) Inside the member function of the same class. **(10)**

   b) What are object? How are they created? **(6)**

Unit - III

3. a) What is operator overloading? Why is it necessary to overload an operator? **(8)**

   b) Differentiate unary and binary operators. **(8)**

OR

3. a) What is an operator function? Describe the syntax of an operator function. **(8)**

   b) When is a friend function compulsory? Give an example with detail. **(8)**

Unit - IV

4. a) What is inheritance? What are the different types of inheritance? Give an example of each. **(10)**

rtuonline.com

   b) Explain the concept of base class and derived class. **(6)**

OR

4. a) When do we make a abstract class? Explain in detail. **(8)**

   b) Describe how an object of a class that contains object of other classes created? **(8)**

Unit - V

5. a) What is a virtual base class? Explain. **(8)**

   b) What are the difference between error and exception? Explain the keywords used in exception handling. **(8)**

OR

http://questionpaperesult.co

5. Write short note on : (any **two**)

i) Templates

ii) Pointer to classes

iii) Multiple inheritance. **(8×2=16)**

++++

tp://questionpaperesult.co