BTS-III(15)11.17-1569 Reg. No. | | | | | | | | |

B

B.Tech. Degree III Semester Examination November 2017

CS/IT 15-1304 OBJECT ORIENTED PROGRAMMING
(*2015 Scheme*)

Time : 3 Hours Maximum Marks : 60

PART A
(Answer *ALL* questions)

(10 × 2 = 20)

I. (a) How is standard input and output done in C++? Mention the role of manipulator to manage output.

(b) Mention the four situations where in-line expansion may not work.

(c) When do we declare a member of a class static? Justify.

(d) Briefly explain a copy constructor with a suitable example.

(e) Describe the importance of destructors with an example.

(f) When do we make a virtual function "pure"?

(g) Differentiate static and dynamic binding.

(h) What are the applications of "this" pointer?

(i) Draw a neat diagram showing the Stream-I/O template hierarchy which includes the file-processing templates.

(j) Write a program to find the frequency of any character in a string object.

PART B

(4 × 10 = 40)

II. (a) Compare and contrast procedural programming and object oriented programming. (6)

(b) Explain return by reference in C++ with an example. (4)

OR

III. (a) What is the difference between using a friend function and a member? Write a program to find the sum of two numbers and display it using a friend function to a class. (5)

(b) Write a program to enter two integers, two float numbers, and two double numbers, and find and display the greater of them using function overloading technique. (5)

IV. Give the concept of array of objects with an example. Write a C++ program to find the product of two matrices. (10)

OR

V. Write a C++ program to implement C = A + B, C = A – B and C = A*B where A, B and C are objects containing an int value (vector). (10)

VI. Explain the usage of inheritance and the types of inheritance with an example. (10)

OR

VII. Differentiate between early binding and late binding, with an example explain how late binding can be achieved in C++ . (10)

(P.T.O.)

VIII. Write a C++ program to define a class called phonebook with data members name, area code, prefix and number and member functions readdata() which reads the values of the data members from the keyboard and writedata() which displays the values of data members. Write main () function to enter data of at least five phone numbers and store details in a binary file "phone" and read the stored details and display on the screen. (10)

OR

IX. (a) Explain methods of exception handling in C++ . (2)

(b) Write a function template for finding the minimum value contained in an array. (8)

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