



KA-3734

Second Year B. C. A. (Sem. III) Examination
September / October – 2012
Paper - 304 : Object Oriented Programming

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="Second Year B. C. A. (Sem. 3)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="304 : Object Oriented Programming"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="3"/> <input type="text" value="4"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="NIL"/>	<input type="text"/>
	Student's Signature

- (2) Figure on the **right** indicate marks.
(3) Take assumption whenever necessary.

1 Answer any twelve :

12

- What is the application of scope resolution operator (::) in C++ ?
- What does this pointer point ?
- What is function overloading ?
- Difference between class and structure.
- What is array of objects ?
- What is the syntax of derived constructor ?
- List out the operator which cannot be overloaded using friend function.
- Explain getline ().
- State the difference between
time T2=T1 ;
and
time T2;
T2=T1;
- What is the advantage of binary file over character file ?
- State the difference between *seekg()* and *seekp()*.
- What is default constructor ?

- 2** Answer the following :
- (a) Explain read () and write () function with example. **6**
 - (b) What is constructor ? Explain different types of constructor. **5**
 - (c) What is visibility modifier ? List out them and differentiate with proper example. **4**

OR

- 2**
- (a) What is Object Oriented Programming ? How is it different from Procedure Oriented Programming ? **6**
 - (b) What do you mean by overloading of an operator ? Why is it necessary to overload an operator ? **5**
 - (c) Explain pure virtual function. When it is necessary ? Explain rules of pure virtual function. **4**

- 3** Answer any **three** : **15**

- (a) Create a class EMP which consists of members empno, empname. Derive a new class INCOME from EMP, INCOME consist of data members basic salary, DA, HRA. Derive another class EXPENSE from EMP which consists of 3 data members incometax, laundry and food. Derived a new class SAVING from INCOME and EXPENSE and find out net saving of employee.
- (b) In which circumstances functions can be made a friend ? Write the advantages of friend function.
- (c) How can you achieve reusability of class ? Explain in detail.
- (d) Explain difference between call by value and call by reference with example.

- 4**
- (a) Create a class POUND that store that data in pound and class RUPEES that stores the data in rupees. Perform the operation = £. Write a program to carry out this. **5**
 - (b) What is constructor ? Explain parameterized constructor and copy constructor with example. **5**
 - (c) What are the different methods to open a file in your program ? List out various file opening modes. **4**

OR

- 4 (a) Explain different types of type conversion. 5
- (b) Create two classes DM and DB which stores the value of the distance. DM stores distance in meters and cm and DB stores distance in feet and inches. write a program that can add one object of DM with another object of DB. Use a friend function to carry out the addition operation. Display the result in meters and centimeters. 5
- (c) Write down the syntax for user defined manipulators. Design a single manipulator to provide the following output specifications for printing float values : 4
- (i) 10 column width
 - (ii) 2 digit precision
 - (iii) Left justified
 - (iv) Filling unused spaces with '*'
 - (v) Trailing Zeros shown.
- 5 (a) Create a binary file information in an organization i.e. empcode, name of employee, basic salary. Write a program to copy the contents of this file to another file where the basic salary is greater than 5000. 5
- (b) Write a class string and overload + for concatenate the string and == for compare the string. 5
- (c) Explain the following functions with example : 4
- (i) getline ()
 - (ii) fill ()
 - (iii) Precision ()
 - (iv) eof ()
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