



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)

| | |
|---|--------------------------------|
| नीचे दृशविक निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book. | Seat No. : _____ |
| Name of the Examination : | _____ |
| Second Year B. C. A. (Sem. 3) | _____ |
| Name of the Subject : | _____ |
| 304 : Object Oriented Programming | _____ |
| Subject Code No. : 3 7 3 4 | Section No. (1, 2,.....) : NIL |
| _____ | 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 ?

KA-3734]

1

[Contd...

- 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

KA-3734]

2

[Contd...

- 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 ()