



SB-1444
Second Year B. C. A. (Sem. III) Examination
March / April – 2011
Paper - 304 : Object Oriented Programming

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

<p>नीचे दर्शाविएल निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination :</p> <p>S. Y. B. C. A. (Sem. 3)</p> <p>Name of the Subject :</p> <p>Paper - 304 : Object Oriented Programming</p> <p>Subject Code No. : 1 4 4 4 Section No. (1, 2,.....) : Nil</p>	<p>Seat No. :</p> <table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td></tr></table> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Student's Signature</div>						

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

- 1 Answer in short : (any **fourteen**) 14
- (i) What is inline function ? Why it is used ?
 - (ii) Explain nested class.
 - (iii) List characteristics of OOP.
 - (iv) List operators which can not overload.
 - (v) What is pure virtual function ? When it is required ?
 - (vi) Explain main () of c++.
 - (vii) Define Destructor.
 - (viii) What is significance of new and delete ?
 - (ix) What is use of scope resolution operator :: in c++.

- (x) Define abstract class.
- (xi) Define object. Also explain array of object.
- (xii) List advantage of Binary file.
- (xiii) Explain getline () function.
- (xiv) Explain width () function. Give example.
- (xv) Explain open () and close () function of file.
- (xvi) Define hybrid inheritance.

2 Answer the followings :

- (a) How polymorphism achieved at runtime and compile time give example of runtime ? **6**
- (b) What is OOP ? How it is differ from POP ? List applications of OOP. **4**
- (c) What is friend function ? Explain with example. **4**

OR

- 2** (a) Create a base class media, declare two data member title and price. Derive two class tape and book from media. Declare virtual function on display in base class media and display details of both book (title, price, page) and tape (title, price, play time) details. **6**
- (b) Write a program to create a class scale. Define two variable feet and inches. Define member function getscale, putscale and sum function to add to measure passed object as argument to the function sum. **5**
- (c) Explain inline function giving suitable example. **3**

- 3** Answer the followings :
- (a) What is constructor ? Explain copy constructor and parameterized constructor. **7**
 - (b) Explain virtual base class giving example. **5**
 - (c) Explain data abstraction and data encapsulation. **2**

OR

- 3** (a) Write a program to add two complex number using friend function. **7**
- (b) Explain this pointer giving example. **5**
 - (c) List file modes. **2**
- 4** (a) What is operator overloading ? Write rules for operator overloading. Give example. **6**

OR

- (a) Create a class string and overload +, ==operator to perform string concate, comparison. **6**
 - (b) Design two class to support following type conversion. **6**
Kilometer k
Meter m
m=k convert kilometer to meter. Write a program to carry out this conversion.
 - (c) Explain static data **2**
- 5** (a) Write a binary file contains information of students i.e. sno, name, percentage. Write a program to copy contents of this file to another file where percentage is <40. **6**

- (b) Explain file types, also explain of stream and ifstream. 4
- (c) Why user defined manipulator is needed ? Design a single manipulator to provide the following output. 4
- (i) Right justified
 - (ii) 6 column width
 - (iii) 4 digit precision
 - (iv) Filling unused space with '*'.
