RC – 3734

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Second Year B. C. A. (Sem. III) Examination

March / April - 2017

305 : Object Oriented Programming

Time : Hours] [Total Marks : 70

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :
☛ SECOND YEAR B. C. A. (SEM. 3)

Name of the Subject :
☛ 305 : OBJECT ORIENTED PROGRAMMING

☛ Subject Code No. : 3 7 3 4 ☛ Section No. (1, 2.....) : Nil

Seat No. :

Student's Signature

(2) All questions are **compulsory**.

(3) Figures to the **right** indicate full marks.

1 Answer any ten. **10**

(1) What is static binding ?

(2) What is the application of scope resolution operator (::) in C++ ?

(3) How does a constant defined by 'const' differ from the constant defined by the preprocessor statement '#define' ?

(4) What is Destructor ?

(5) List out the operators that cannot be overloaded.

(6) What is pure virtual function ?

(7) What is the advantage of new over malloc ( ) ?

(8) What is the difference between private and protected visibility modes ?

(9) What is stream ?

(10) State the difference between ios::app and ios::ate mode.

(11) What is constructor with default argument ?

2 Do as directed : 15

(a) Explain function overloading with example. 7.5

(b) Explain any three concepts of OOP. 7.5

OR

2 (a) What is the major use of data members and member functions as static ? Explain it with example. 7.5

(b) Explain reference variable. Give its application with example. 7.5

3 Do as directed : 15

(a) Explain constructor with example.

(b) Explain operator overloading with example.

OR

3 (a) What is inheritance ? Explain multiple inheritance with example. 7.5

(b) What is containership ? How does it differ from Inheritance ? Give example. 7.5

4 Attempt any **two** : 15

(a) Explain Exception handling in C++ with example.

(b) Explain virtual base class with example.

(c) Write a note on data abstraction and encapsulation

(d) Demonstrate virtual base class with example.

5 Attempt any **two** : 15

(a) Design a classes Rupee and Pound such that they support the followings :

Rupee R1, R2;

Pound P1, P2;

P1 = R1 – Converts Rupee to Pound

R2 = P2 – Converts Pound to Rupee

Write a program in C++ which carries out conversion operation.

(b) WAP to maintain telephone directory using Array of objects. Program should provide menu like

(1) Entry (Enter a new record)

(2) Search (Search the contact no. of given name, if exists)

(3) Display all entry

(4) Exit

(c) Design single manipulators to provide the following output specification for printing float value.

(1) 15 column width

(2) 4 digit precision

(3) Left justified

(4) Filling unused space with '#'

(5) Display the trailing zeros.