

00830

**B.Tech. COMPUTER SCIENCE AND  
ENGINEERING (BTCSVI)**

**Term-End Examination**

**June, 2013**

**BICS-003 : OBJECT ORIENTED PROGRAMMING**

*Time : 3 hours*

*Maximum Marks : 70*

*Note : Attempt any five questions. Question No. 1 is mandatory.*

1. (a) State whether the following statements are True/False. 4x2=8
- (i) A function cannot be overloaded only by its return type.
  - (ii) A function that calls itself for its processing is known as Inline function.
  - (iii) Variable inside parenthesis of function declarations have local level access.
  - (iv) Main () is the only function all C++ programs must contain
- (b) Choose the correct answer : 2x3=6
- (i) Which looping process checks the test condition at the end of loop ?
    - (A) for                      (B) While
    - (C) do-while              (D) none of them

(ii) Which of the following is the boolean operator for logical - and.

- (A) &                      (B) & &  
(C) |                        (D) |&

2. (a) Explain the concept of object oriented programming. How is it different from procedure oriented programming ? **7x2=14**  
(b) What is the difference between abstraction and encapsulation ? Support your answer with example.
3. (a) Explain the mechanism of C++ garbage collection. **7x2=14**  
(b) Explain abstract data type. Also describe the steps of class declaration in C++.
4. What is the concept of operator overloading ?  
Write a program to overload + operator in C++.  
**4+10=14**
5. (a) Discuss inheritance and its types with diagram. **7x2=14**  
(b) Explain the concept of class template with example.
6. Explain the mechanism of exception handling with diagram and pseudocode. Define an exception called "Not Equal Exception" that is thrown when a string is not equal to "JAVA". **14**

7. Write short note on following (**any two**) **7x2=14**

- (a) Destructors in C++
  - (b) Virtual Base Class
  - (c) Friend Functions
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