

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

Term-End Examination

December, 2013

BICS-003 : OBJECT ORIENTED PROGRAMMING

Time : 3 hours

Maximum Marks : 70

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

1. State whether True/False. **7x2=14**
- (a) For loop is the best used when the no. of iterations is known.
 - (b) { } is used to signal the beginning and end of code blocks.
 - (c) The file iostream includes the declarations of the basic standard input-output library.
 - (d) Cout is declared in the iostream standard file.
 - (e) \f is a valid escape mode.
 - (f) Choose the correct answer.
Which of the following is not a correct variable type.
 - (i) float
 - (ii) real
 - (iii) int
 - (iv) double
 - (g) Which of the following can not be used as identifiers ?
 - (i) Letters
 - (ii) Digits
 - (iii) Underscores
 - (iv) Spaces

2. (a) What are the unique advantages of object oriented programming ? Explain the characteristics of object oriented languages.
(b) What is the difference between dynamic binding and message passing ? Support your answer with example. **7x2=14**
3. (a) Differentiate between C and C++.
(b) Explain the concept of dynamic memory allocation in C++. **7x2=14**
4. (a) Explain the concept of polymorphism and its classification.
(b) Explain function template with example code. **7x2=14**
5. Compare and contrast overloading and overriding methods. Write a program in C++ to overload new and delete operator. **14**
6. Explain the concept of stream class. How are the stream classes classified ? Also discuss stream manipulators. **14**
7. Write short notes on the following (any two) : **7x2=14**
(a) Virtual Function
(b) Concept of Constructor
(c) Access Specifier in C++
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