

01345

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

Term-End Examination

June, 2012

**BICS-015 : PRINCIPLES OF PROGRAMMING
LANGUAGE.**

Time : 3 hours

Maximum Marks : 70

*Note : All questions are to be answered in English Language
Only. Attempt **any seven** questions from the following.*

1. (a) What are the various applications of the programming languages ? 5
- (b) What is the concept of functional programming ? Explain with any example. 5
2. (a) Explain static and dynamic scope of programming languages. 5
- (b) Differentiate between dynamic method binding and polymorphism. 5
3. (a) Write a suitable example to explain the concept of inheritance in object oriented programming. 5
- (b) What are the various methods of parameter passing ? Explain with the help of example. 5

4. (a) What are the advantages of using pointers in programming ? Explain with the help of a example. 5
- (b) What are the different data types supported by C++ ? 5
5. (a) State the access rules for accessing static members in C++. 5
- (b) What are pre conditions, invariants and post conditions ? Explain their role in loops. 5
6. Explain the following sequence control mechanism with example. 10
- (a) recursion
- (b) iteration
7. (a) What are the general attributes of structured data types. 5
- (b) Write a program for a list of fruits and determine if apple belongs to fruits. 5
8. Write a recursive PROLOG program that solves the puzzle. "Towers of Honai". 10
9. (a) Explain the property list and macro Expansion in LISP. 5
- (b) With the help of a suitable example. Explain loop type statement in COBOL. 5

10. Write short note on *any two* from the following
with suitable examples :

5+5=10

- (a) Data types in ADA
 - (b) Early and Late Binding
 - (c) Key features of JAVA
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