

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

00016

Term-End Examination

December, 2014

**BICS-015 : PRINCIPLES OF PROGRAMMING
LANGUAGES**

Time : 3 hours

Maximum Marks : 70

Note : Attempt any *seven* questions. All questions carry equal marks.

1. (a) Explain in detail about the various language evaluation criteria and the characteristics that affect them. 6
- (b) Describe the data types in Ada language. 4
2. (a) Explain the unconditional branching and the problems associated with it. 5
- (b) Explain about Von-Neumann Computer Architecture. 5
3. (a) Compare elementary data with structured data and mention any four desirable features of a good programming language. 5
- (b) Explain about parameterized abstract data types with the help of an example in C++. 5

4. (a) What is prototype ? Explain the importance of prototypes in 'C' language. 5
- (b) What is the significance of derived classes in object-oriented programming ? Explain. 5
5. (a) Explain the concept of public, private and protected member of a class with the help of suitable examples. 5
- (b) What is Inheritance ? Explain the concept of single and multiple inheritance with the help of suitable examples. 5
6. (a) Explain the basic concepts of exception handling. What are the design issues for exception handling system ? 5
- (b) What is a C++ Namespace and what is the role of it ? 5
7. Discuss the different types of data-types in PROLOG. Also give any five data-types using one example of each. 5
8. (a) Explain the concept of control mechanism in PROLOG with the help of suitable examples. 5
- (b) Explain the four divisions in COBOL. 5

9. (a) What is the significance of PICTURE clauses ? Explain the syntax and use of MULTIPLY and DIVISION verbs. 5
- (b) Distinguish between Direct and Sequential Access files. 5
10. Write short notes on any *two* from the following : $2 \times 5 = 10$
- (a) LISP
- (b) Object Oriented Programming
- (c) Dangling Pointers
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