

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

Term-End Examination

June, 2016

00326

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

Time : 3 hours

Maximum Marks : 70

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

1. (a) Why are Readability and Writeability considered the most important criteria for evaluating programming languages ? 6
- (b) What is ADA ? List the various in-built data types in ADA. 4
2. (a) Write the major factors that influence the development of programming languages. Give a brief overview of programming language development. 6
- (b) Write a short review to show how Java has simplified C++, if at all. 4

3. (a) Differentiate between 'for' statement in C++ and Java. 5
- (b) Explain multiple inheritance and the problems that arise during its implementation in C++. 5
4. (a) How is inheritance of Java different from inheritance of C++ ? 5
- (b) Does dynamic binding help programmers to reuse the code ? How does it provide protection ? 5
5. (a) Name the areas in which Prolog programming language is used. How can Prolog language be stated as a procedural language ? 5
- (b) Describe some data types in Prolog programming language. Also give an example of using structure in Prolog. 5
6. (a) What are the characteristics of LISP ? 5
- (b) Differentiate between 'while' and 'do-while' loops with the help of an example. 5
7. (a) Explain the data movement verb and compute statement in COBOL. 5
- (b) Explain the necessity for four divisions of a COBOL program. 5

8. (a) What do you understand by Von Neumann bottleneck ? 4
- (b) Differentiate between the following : 6
- (i) Object and Class
- (ii) Data Abstraction and Data Encapsulation
- (iii) Dynamic Binding and Message Passing
9. (a) What is meant by unification ? How is it used in logic programming ? 5
- (b) Why is Java known as a pure object oriented programming language ? Justify your answer. 5
10. Write short notes on the following :
- (a) Sequential File Organization 5
- (b) 4GLs 5
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