

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

**Term-End Examination**

00943

**December, 2016**

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

*Time : 3 hours*

*Maximum Marks : 70*

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

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1. Describe various conditional and loop control structures generally used in any programming language. Explain each with one example by using 'C' language. 10
  
2. (a) Explain the parameter passing techniques (call by value and call by reference) with one example each using 'C' language. 7  
(b) Explain the scope of a variable with an example. 3
  
3. (a) Write any five differences between procedure oriented and object oriented programming languages. 5  
(b) Explain 'Constructor' and 'Destructor' in C++ with one example each. 5

4. Explain the concept of 'operator overloading' and 'function overloading' in C++ with one example each. 10
5. What do you understand by 'inheritance' in object oriented languages ? Explain with base class, derived class, public, private and protected classes. 10
6. (a) What are the various control structures used in PROLOG ? Explain in brief. 5
- (b) What is LISP ? Explain all the features of LISP. 5
7. (a) Write the syntaxes of 'ADD', 'SUBTRACT', 'COMPUTE' and 'PERFORM' statements in COBOL language, with one example each. 8
- (b) Describe in brief about 'Procedure Division' of COBOL programme. 2
8. (a) Write and explain at least five features of Java. 5
- (b) Write the pseudocode on exception handling for 'divide by zero' exception in Java. 5
9. Write short notes on the following :
- (a) Data Abstraction 3
- (b) Sequential File Processing 3
- (c) Class and Object with an example 4