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BICS-015

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

Term-End Examination

00048

June, 2015

BICS-015 : PRINCIPLES OF PROGRAMMING LANGUAGES

Time : 3 hours *Maximum Marks : 70*

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

1. (a) What are the factors that influence the basic design of programming language ? *5*

(b) Explain about various programming domains. *5*

2. (a) What is the scope of a loop parameter in ADA ? Compare it with static and dynamic scope. *5*

(b) Explain exception handling in ADA. *5*

3. (a) Define pointer in 'C' programming. Differentiate between call by value and call by reference with examples. *6*

(b) Define static binding and dynamic binding. *4*

4. (a) What is the basic concept of declarative semantics ? Explain. 5

(b) What is array ? Explain the different types of array. 5

5. Define the following with examples : 5×2=10

(a) Object

(b) Class

(c) Public Class

(d) Private Class

(e) Protected Class

6. Compare COBOL and 'C' based on the following : 10

(a) Data structure concept

(b) Sequence control

(c) Subprogram facility

(d) Storage management

(e) Block structure

7. (a) What are the language design issues for abstract data types ? 5

(b) Explain the concept of Multiple Inheritance with the help of suitable C++ example. 5

8. (a) What are the differences between CONS, LIST and APPEND ? 5

(b) Write a LISP function Fib(n) that computes n^{th} Fibonacci number. 5

9. (a) Describe the structure of a COBOL program with the help of example. *5*

(b) Describe the different ways of using PERFORM verb in COBOL. *5*

10. Write short notes on any ***two*** of the following : *2×5=10*

(a) PROLOG

(b) File Processing

(c) Data Abstraction and Information Hiding
