F 3365 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, NOVEMBER 2014

Seventh Semester

Branch : Computer Science and Engineering

CS 010 705—PRINCIPLES OF PROGRAMMING LANGUAGES (CS)

(New Scheme—2010 Admission onwards—Regular/Supplementary)

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *questions.*
Each question carries 3 *marks.*

1. Why is readability important to writability ?
2. Define life time, scope, static scope and dynamic scope.
3. What are the design issues for selection structures ?
4. What are the design issues for functions ?
5. How are exceptions bound to handlers in C++ ?

(5 × 3 = 15 marks)

Part B

Answer **all** *questions.*
Each question carries 5 *marks.*

6. Briefly describe a hybrid implementation system.
7. What is a strongly typed language ? Explain with an example.
8. Explain the advantage of treating the assignment operator as if it were an arithmetic operator.
9. What is parametric polymorphism ? Explain with an example.
10. What is the difference between EQ ? EQU ? and = ?

(5 × 5 = 25 marks)

Part C

Answer **all** *questions.*
Each full question carries 12 *marks.*

11. Explain the attributes of a good programming language.

Or

12. Explain how the computer architecture and programming methodologies influence the basic design of a programming language.

Turn over

13. What is a primitive data type ? Explain the various primitive data types with suitable examples.

Or

14. Elaborate on the concept of binding with emphasis on type binding and storage binding.

15. What are iterative counter-controlled loops ? Explain the same with respect to various programming languages.

Or

16. Explain the various design issues with respect to arithmetic expressions.

17. What are the three semantic models of parameter passing ? Explain.

Or

18. (a) What are the two issues that arise when subprogram's names are parameters ? Explain. (7 marks)

(b) Distinguish separate and independent compilation. (5 marks)

19. Explain exception handling with respect to Java programming language.

Or

20. (a) Define PROLOG search trees with examples. (5 marks)

(b) Explain the use of cuts in Logic Programming. (7 marks)

[5 × 12 = 60 marks]