

CS 404 /

**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, JUNE 2011**

CS 09 404/PTCS 09 403 – PROGRAMMING PARADIGMS

(2009 Admissions)

Time : Three Hours

Maximum : 70 Marks

Answer all questions.

Part A

1. Mention the advantages of C programming.
2. What are context free grammars?
3. Differentiate a class and an object in C++.
4. List out the advantages of using type checking in functional programming.
5. What do you mean by a scheme in logic programming?

(5 × 2 = 10 marks)

Part B

1. What is meant by natural semantics?
2. Differentiate static memory allocation and dynamic memory allocation in C languages.
3. Write a program in C++ to illustrate the concept of template functions.
4. What are the approaches available to evaluate expressions in functional programming?
5. How is information hiding done in C++? Justify with an example.
6. Explain the liveness properties in concurrent programming.

(4 × 5 = 20 marks)

Part C

1. Explain about structured programming with an example.

Or

2. Discuss in detail about nested scope implementation in C language.

Turn over

3. Explain the characteristics of object oriented programming.

Or

4. Explain the different types of inheritance in C++ with appropriate examples.

5. Describe the elements of functional programming.

Or

6. How is simplification of expressions for lists done? Illustrate with an example.

7. Write a note on logic programming.

Or

8. Explain about the data structures and control in PROLOG.

(4 × 10 = 40 marks)

