C 15650

(Pages : 2)

Name........................

Reg. No....................

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.
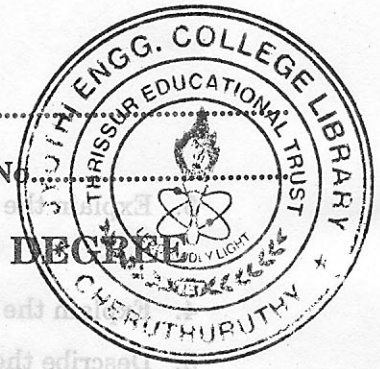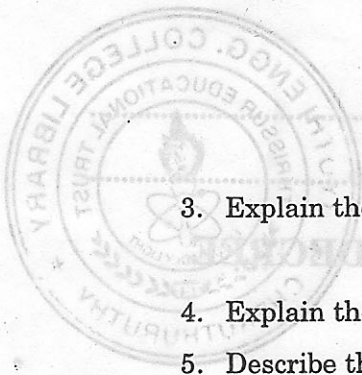
(4 × 5 = 20 marks)

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.

$(4 \times 10 = 40$ marks$)$