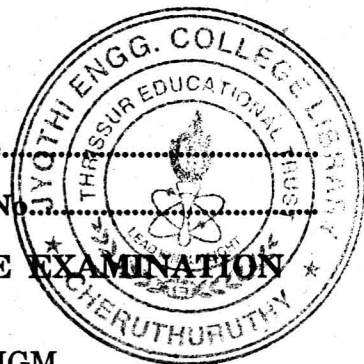


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Name.....

Reg. No.....



**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION  
MAY 2012**

**CS 09 404/PTCS 09 403—PROGRAMMING PARADIGM**

(2009 Admissions)

Time : Three Hours

Maximum : 70 Marks

**Part A**

*Short answer questions (one or two sentences)*

*All questions are compulsory.*

1. What are the different programming paradigms ?
2. Define object and class.
3. What are the operations on lists ?
4. What is a Monitor ?
5. Highlight the advantages of using the lexical scope.

(5 × 2 = 10 marks)

**Part B**

*Analytical / Problem solving questions.*

1. What is Abstract syntax tree ? Explain with an example.
2. How do arrays differ from records? What are variant records ?
3. What are base and derived classes in C++ ?
4. Write notes on type checking in lists ?
5. What are association lists ? Explain.
6. What is a control in PROLOG ? Explain its uses.

(4 × 5 = 20 marks)

**Part C**

*Descriptive Analytical / Problem solving questions.*

1. Describe in detail about the compound types and how it is implemented in C with an example.

Or

2. What is Structured Programming ? Explain all the constructs for structured control flow.
3. Explain in detail about the major features of object oriented programming.

Or

4. Define a class stack implementing the methods to perform various operations on stack.

Turn over

5. Define lexical scope and explain with an example.

*Or*

6. Discuss on storage allocation features of lists in detail.

7. What is a semaphore ? Illustrate its use with producer-consumer problem.

*Or*

8. Discuss the features of PROLOG.

(4 × 10 = 40 marks)

