

Code: CS4T4

**II B.Tech - II Semester – Regular Examinations - May 2016**

**PRINCIPLES OF PROGRAMMING LANGUAGES  
(COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11 x 2 = 22 M

1)

- a) List the reasons for studying the programming languages.
- b) List the various programming domains.
- c) What is a parse tree? Explain with an example.
- d) Define attribute grammar with an example.
- e) What is scope of a variable?
- f) Distinguish between static and dynamic binding.
- g) What is unconditional branching? Write the syntax of goto statement in C.
- h) What is short circuit evaluation? Explain with an example.
- i) List the various parameter transmission modes.
- j) What is an overloaded sub program? Explain.
- k) List the applications of functional programming languages.

## PART – B

Answer any **THREE** questions. All questions carry equal marks. 3 x 16 = 48 M

2)

a) List and explain in the various phases of compilation in detail. 8 M

b) Explain language evolution criteria and the characteristics that affect them. 8 M

3) List out the Formal methods of describing syntax. Explain any three methods with an example. 16 M

4)

a) What is a record? Explain in detail about records in various programming languages. 8 M

b) Explain about pointer in four different languages. 8 M

5) Explain in detail about various Iterative statements with syntax and examples. 16 M

6)

a) Compare and contrast call by value and call by reference with examples. 8 M

b) Explain about ML and Haskell. 8 M