PVP 14

Code: CS4T4

II B.Tech - II Semester–Regular/Supplementary Examinations–April 2018

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) Write any two reasons for studying Programming languages.

   b) List out Language categories .

   c) Define ambiguous grammars give an example.

   d) Write short notes on dynamic semantics.

   e) What is an associative array?

   f) Write about strong typing.

   g) Explain about Counter Controlled Loops.

   h) Discuss about Guarded command.

   i) Define static scope and dynamic scope.

   j) Write short notes on

      i) overloaded subprograms ii) co-routines

   k) Write a note on the functional programming language Haskell.

PART – B

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

2. a) Discuss about Programming Language evaluation criteria. 8 M

   b) Explain any two language implementation techniques for bridging the gap between high and low level languages, with neat figures, and their advantages and disadvantages. 8 M

3. a) What is syntax tree and Draw the syntax tree for a+b∗c/d + e-f. 8 M

   b) What is the fundamental difference between operational semantics and dynamic semantics? 8 M

4. a) What are the design issues of character string types? Discuss. 8 M

   b) Discuss about 8 M
   (i)Type checking (ii) Type equivalence.

5. a) Explain about Assignment statements. 6 M

   b) Discuss various kinds of selection statements. 10 M

6. a) What is Sub Programming? Explain semantic models of Parameter Passing. 8 M

b) Explain in detail about the functional programming language LISP. 8 M