

Code: 15A05504

B.Tech III Year I Semester (R15) Supplementary Examinations June 2018

**PRINCIPLES OF PROGRAMMING LANGUAGES**

(Computer Science &amp; Engineering)

Time: 3 hours

Max. Marks: 70

**PART – A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) List few programming languages paradigms.
  - (b) Define a language and list the two aspects of any programming language.
  - (c) Write the examples of built-in types of a programming language.
  - (d) Compare static and dynamic program checking.
  - (e) Write the prefix and postfix forms of the infix expression "a\*b+c"
  - (f) Define the goal of software design.
  - (g) Describe the features of object oriented languages.
  - (h) Contrast single and multiple inheritances.
  - (i) List the characteristics of imperative languages.
  - (j) Identify three components of a functional programming language.

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Describe about the sample software development process based on the waterfall model.

**OR**

- 3 Explain about the language processing issues in detail.

**UNIT – II**

- 4 Compare built-in types and primitive types with examples.

**OR**

- 5 Write short notes on the following:
- (i) Monomorphic versus polymorphic systems.
  - (ii) Types and subtypes.

**UNIT – III**

- 6 Explain in detail about conditional execution and iteration.

**OR**

- 7 Describe about concepts in support of modularity.

**UNIT – IV**

- 8 Discuss in detail about object-oriented programming concepts.

**OR**

- 9 Describe about the features of inheritance and type system.

**UNIT – V**

- 10 (a) Explain about the features of imperative languages.  
(b) Describe about the principles of functional programming.

**OR**

- 11 Discuss in detail about principles of logic programming.

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