R15

Code: 15A05504

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

PRINCIPLES OF PROGRAMMING LANGUAGES

(Computer Science & Engineering)

Time: 3 hours Max. Marks: 70

PART - A

(Compulsory Question)

- 1 Answer the following: $(10 \times 02 = 20 \text{ Marks})$
 - (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, $5 \times 10 = 50 \text{ Marks}$)

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

- 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.
