

Roll No

CS-602

B.E. VI Semester

Examination, December 2016

Principles of Programming Languages

Time : Three Hours

Maximum Marks : 70

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
ii) All parts of each question are to be attempted at one place.
iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.
iv) Except Numericals, Derivation, Design and Drawing etc.

Unit - I

1. a) What is parse tree?
b) Differentiate between syntax and semantics.
c) Explain the role of virtual machines?
d) Explain in detail about various language evaluation criteria and the characteristics that affect them.

OR

Discuss the issues in language translation.

Unit - II

2. a) What are the advantages of user defined data types?
b) What are the primary design issues of names?
c) Define the structured sequence control statements.
d) What are the problem that occurs in the evolution of tree representation of expression.

OR

What is exception handling? What are the design issues in exception handling?

Unit - III

3. a) What is sub-program?
b) What is static scope and dynamic scope?
c) What is scope and life time of variable?
d) Explain the various parameter passing mechanism.

OR

Discuss the design issues of sub-programs and operations.

Unit - IV

4. a) What is data abstraction?
b) What is semaphores?
c) Differentiate between C# threads and Java threads.
d) Explain heap storage management with
i) Fixed size storage management
ii) Variable size storage management

OR

Explain the static and stack based storage management.

Unit - V

5. a) What is resolutions?
b) What is logic programming?
c) What are the applications of logic programming?
d) Explain the features of functional programming languages.

OR

Explain the features of Java in comparison with C++.
