

**PUNE INSTITUTE OF COMPUTER TECHNOLOGY  
DHANKAWADI, PUNE – 43.**

Department of Computer Engineering

Academic Year: 2019-20 (Semester-II )

**UNIT TEST I**

**Year: 2019-20**

**Subject: Principles of Programming Language**

Time: - 1 Hour

Max. Marks: - 30

Date: **10/02/2020**

**Instructions to the candidates:-**

- 1) *All Questions are Compulsory.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Assume Suitable data if necessary.*

| <b>Q. No.</b> | <b>Questions</b>   | <b>Marks</b> | <b>Unit No.</b> | <b>Cos Covered</b> | <b>CO Mapping</b> |
|---------------|--|--------------|-----------------|--------------------|-------------------|
| 1.            | Explain the following major components of any Programming Language<br>1) Syntax<br>2) Semantics  | 5            | 1               | CO1                | H                 |
| 2.            | State and explain EBNF definition for simple programming language (which constitutes conditional statement, loop statement and expressions)          | 5            | 1               | CO1<br>CO2         | H                 |
| 3.            | What is important of reliability and maintainability to programming language? List the factors which ensure the reliability and maintainability.     | 5            | 1               | CO1                | H                 |
| 4.            | Explain the semantic elements of programming languages along with its attributes with respect to binding.  | 5            | 1               | CO1<br>CO2         | M                 |
| 5.            | Explain the following models which are used in design of data types with examples<br>1) Cartesian product<br>2) Discriminated unions<br>3) Recursion | 6            | 2               | CO2                | H                 |
| 6.            | What are primitive and built in data types? List the advantages of introducing built -in data types in programming languages.                        | 4            | 2               | CO2                | M                 |