

**R09**

Code No: 54028

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B.Tech II Year II Semester Examinations, May - 2019**

**PRINCIPLES OF PROGRAMMING LANGUAGES**

**(Information Technology)**

**Time: 3 hours**

**Max. Marks: 75**

**Answer any five questions  
All questions carry equal marks**

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- 1.a) Explain the characteristics of various programming paradigms.
- b) Discuss about the general methods of implementing a programming language. [8+7]
- 2.a) In what fundamental way do operational semantics and denotational semantics differ?
- b) Explain the differences between BNF and EBNF. [8+7]
- 3.a) Explain the process of Array initialization.
- b) Discuss the design issues for character string types with examples. [7+8]
- 4.a) What are the problems associated with Unconditional Branching? Give examples.
- b) Discuss in detail about compound statements. [8+7]
- 5.a) What are the design issues that are involved in functions? Discuss.
- b) How subprogram is overloaded? Explain with examples. [8+7]
- 6.a) Explain in detail about exceptional handling in Java.
- b) Explain in detail about C++ parameterized ADT. [8+7]
- 7.a) Discuss about the Terms and Goal statements in Prolog.
- b) Write detailed notes on C# threads. [8+7]
- 8.a) What are the differences between Imperative and functional languages? Discuss.
- b) Explain the Basic primitives of LISP with suitable examples. [8+7]

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