

Code No: 137GA

R16

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, March - 2021

PRINCIPLES OF PROGRAMMING LANGUAGES

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

- 1.a) What are the main features of the programming paradigm with examples?
- b) Explain the process of compilation in each phase of a compiler. [7+8]
- 2.a) Describe scope and lifetime of variables with suitable examples.
- b) Explain the conditional statements and its implementation with suitable examples. [7+8]
- 3.a) Define Coercion, Typeerror, Typechecking and Strong Typing.
- b) Explain structure of an associative array with example. [7+8]
- 4.a) Explain two methods for implementing blocks.
- b) Explain about Co-Routines with an example. [8+7]
- 5.a) Discuss about pass-by-result and pass-by-value-result parameter passing methods, with a detailed programming example for each.
- b) Discuss the design issues of subprogram and its operations performed on them. [8+7]
- 6.a) Explain how message passing helps in concurrency control? Explain with an example.
- b) What is event? Write about event handling in C# with example. [7+8]
- 7.a) Explain about LISP functional programming language.
- b) Explain different types of propositions present in logic programming. [7+8]
- 8.a) Compare functional and imperative languages.
- b) Explain Fact and Rule Statements in Prolog with suitable examples. [7+8]

--ooOoo--