

Code No: 55025

R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, November - 2015

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) Mention the criterion to be adopted for language evaluation.
b) Explain about different programming environments. [8+7]
2. a) Write about denotational semantics.
b) Explain about the formal methods used for describing syntax. [7+8]
3. Explain about design and implementation uses related to record, union, pointer and reference types. [15]
4. a) Explain about selection and iteration control structures.
b) Explain about short circuit evaluation in a mixed mode assignment. [7+8]
5. a) Which languages support overloading operators? Explain with an example.
b) Explain design issues of subprograms. [8+7]
6. a) What is a monitor? How do monitor condition variables differ from semaphores?
b) Compare procedure oriented and object oriented programming. Explain the object oriented features supported by C++. [7+8]
7. a) What are the possible frames of exceptions in Ada? How can an exception be explicitly raised in Ada?
b) Explain about generate – and – test programming strategy in Prolog. [8+7]
8. a) Mention the key concepts of scripting languages.
b) State the applications of functional programming languages. [7+8]

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