

R09

Code No: 54028

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, July/August - 2021

PRINCIPLES OF PROGRAMMING LANGUAGES

(Information Technology)

Time: 3 hours

Max. Marks: 75

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

- 1.a) Discuss about virtual machines and compilers.
- b) Explain the language evaluation criteria and the characteristics that affect them. [7+8]
2. Define attribute grammars. Give an attribute grammar for simple assignment statements. [15]
- 3.a) What do you mean by coercion? How does it affect strongly typed languages? Discuss.
- b) Explain the differences between array, record and union data types. [8+7]
4. What are selection statements? Discuss about the design issues of different selection statements. [15]
- 5.a) Discuss about basic elements of prolog. Give examples.
- b) Explain about Exception handling in C++ and C#. [8+7]
- 6.a) What is a co-routine? How do they provide interleaved execution? Discuss.
- b) What are the general characteristics of subprograms? Explain. [8+7]
7. Explain the procedural abstraction in Python. [15]
- 8.a) What is a binary semaphore? Compare it with counting semaphore.
- b) What are the main features of C# and Ada 95? Discuss. [8+7]

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