Code No: 155CX

R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year I Semester Examinations, March - 2021
PRINCIPLES OF PROGRAMMING LANGUAGES
(Common to CSE, IT)

Time: 3 Hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks
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1.a) What are the various language evaluation criteria and the characteristics that affect them? Discuss.
 b) Explain about various programming domains and their features. [7+8]

2.a) Write BNF and EBNF versions of an expression grammar.
 b) Explain in detail about attribute grammars with examples. [8+7]

3.a) Distinguish between name type compatibility and structure type compatibility.
 b) Discuss the design issues of multiple selection constructs. [8+7]

4.a) What is a short-circuit evaluation? How does operand evaluation order interact with functional side effects?
 b) Explain the design issues of subprograms and operations. [7+8]

5.a) Write about parameterized abstract data types with an example in C++.
 b) What are the language design requirements for a language that supports abstract data types? [8+7]

6.a) Why were imperative features added to most dialects of LISP? Discuss.
 b) Explain in detail about exception handling in Ada. [7+8]

7.a) What are the applications of functional programming? Explain.
 b) What are the features of Prolog? Discuss the basic elements of Prolog. [7+8]

8.a) Write the key concepts of scripting languages and explain them.
 b) Differentiate between procedural abstraction and data abstraction with examples.[7+8]

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