SS

Code: 9A05501

B.Tech IV Year I Semester (R09) Regular & Supplementary Examinations December 2015

PRINCIPLES OF PROGRAMMING LANGUAGES

(Information Technology)

Time: 3 hours Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks
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1 (a) Explain the different aspects of the cost of programming languages.
(b) What are the advantages in implementing a language with a pure interpreter?

2 (a) Convert the following BNF to EBNF:
<assign> → <id> = <expr>
<id> → A | B | C
<expr> → <id> + <expr> | <id> * <expr> | (<expr>) | <id>
(b) Describe the basic concept of denotational semantics?

3 (a) What is an associative array? Explain its structure and operations with respect to perl language.
(b) What is record data type? How records are defined in COBOL and Ada?

4 (a) Explain the importance of operand evaluation order.
(b) What is operator overloading? Explain operator overloading in different languages.

5 (a) Explain type-checking technique in parameter passing method.
(b) Discuss how generic functions are implemented in C++.

6 (a) Explain Ada synchronous message passing model.
(b) What is a thread? Explain how threads are implemented in java.

7 (a) Explain Negation problem in Prolog.
(b) Explain about the basic elements of Prolog.

8 (a) What is lazy evaluation? Explain it with an example.
(b) Discuss in detail about the selection control flow using ML.

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