BTS-III(S)-11.20-0681 Reg. No. | | | | | | | | |

B

B.Tech. Degree III Semester Supplementary Examination November 2020

CS 15-1305 PRINCIPLES OF PROGRAMMING LANGUAGES

(*2015 Scheme*)

Time: 3 Hours Maximum Marks: 60

PART A

(Answer *ALL* questions)

(10 × 2 = 20)

I. (a) Write the various applications of programming languages

(b) What are the factors affecting readability of a programming language?

(c) Write a note on attribute grammar.

(d) Explain named constants and variable initialization in programs.

(e) Explain the coroutines.

(f) Explain the features of Small talk.

(g) Differentiate between function overloading and function overriding.

(h) Draw the internal representation of a LISP LIST
(A (BC) D (E (FG)))

(i) Write a note on clausal form.

(j) Write short note on resolution principle.

PART B

(4 × 10 = 40)

II. Define syntax of a programming language. Discuss the formal methods of describing syntax. (10)

OR

III. Briefly explain various programming paradigms. (10)

IV. (a) What is meant by scope and lifetime of a variable? (5)

(b) Write short note on referencing environment with example. (5)

OR

V. Explain various methods of passing parameter to subprograms with suitable example. (10)

VI. Explain in detail, the design issues associated with programming languages. (10)

OR

VII. What are errors and exceptions? Explain how exceptions are handled in Java. (10)

VIII. (a) What is meant by Lambda Calculus? (5)

(b) List any four functions in LISP and give examples. (5)

OR

IX. Discuss the applications of functional and logic programming languages. (10)

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