ST.FRANCIS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF INFORMATION TECHNOLOGY

Subject: Paradigms and Computer Programming Fundamentals
Class/Semester: SE /III A and B

Chapter-03 Important Questions

Q.1 Define functional programming. Enlist any two important characteristics of functional programming

Q.2 List and explain the advantages of functional programming

Q.3 Define types and collections with respect to functional programming

Q.4 Enlist and explain core functional programming characteristics

Q.5 Enlist limitations of functional programming

Q.6 What is Lambda calculus. Write the lambda calculus equations/definitions for the following operation

- Unity operation
- Successor function
- Addition operation
- Plus 2 operation

Q.7 Define free and bound variables. Explain with examples

Q.8 Explain abstract syntax tree with example

Q.9 Write short note on (a) Expressions (b) Functions (c) Equations wrt functional programming. Support answers with examples

Q.10What is currying in Haskell. Illustrate with examples

Q.11What is list. Enlist important properties of List.

Q.12 Write short note on Mondas

Q.13 Explain the basic data types in Haskell

Q.14What mathematical formalism underlies functional programming?

Q.15How can one accommodate I/O in a purely functional programming model?

Q.16What is higher order functions. Give three examples

Reference : PPTs and chapter 10 of ML Scott

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