

13. What are Languages of Databases ? How the relational databases can be manipulated using SQL ? 11

Or

Write short notes on the following :

- (a) Logic programming
- (b) Structured programming
- (c) Language Constructs of Parallel Processing. 11

Roll No.

Exam Code : J-19

Subject Code—0395

M.C.A. (Fifth Year) EXAMINATION

(5 Years Integrated Course)

(For Batch 2009 Onwards Main & Reappear)

PRINCIPLES OF PROGRAMMING
LANGUAGES

MCA-501

Time : 3 Hours

Maximum Marks : 70

Note : Attempt any *seven* questions from Section A and attempt all the questions from Section B.

Section A

1. What is meant by Language paradigm ? Name at least three programming Language Paradigms.

2. What do mean by language design trade-offs ?
3. Differentiate between primitive data types and non-primitive data types.
4. Define Context free language.
5. What is Push Down Automata ? Give formal definition of PDA.
6. What are advantages of an Object Oriented Programming Paradigm ?
7. What are Function Languages ? Give example of one functional language.
8. Explain in brief about the language of databases.
9. What the Prolog is considered most popular logic programming language ?
10. What do you understand by synchronization of cooperating processes ?

Section B

Note : Attempt all the questions.

11. What are Object Oriented Languages ? Discuss the features of Object Oriented Languages in detail. 12

Or

Explain the following in context of Object Oriented Languages :

- (a) Polymorphism
- (b) Inheritance. 12

12. (a) Discuss the features of functional programming languages. 6
- (b) What are applications of functional languages ? 6

Or

- (a) What are characteristics of imperative languages ? 6
- (b) Differentiate between functional and imperative programming. 6