

14/05/2019

Roll No.

Total Pages : 03

MCA/M-19

10503

PRINCIPLES OF PROGRAMMING
LANGUAGES
MCA-14-23

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory.
In addition to that attempt *four* more questions, selecting
exactly *one* questions from each Unit.

1. Explain the following terms in brief :

- (a) Language syntax (b) Programming history
(c) Regular grammar (d) Data types
(e) Structured data type (f) Subprogram
(g) Distributed processing
(h) Processor design. 8×2=16

Unit I

2. (a) Write a short note on role and characteristics of a
good programming language. 8
(b) Explain various types of binding in a programming
language using suitable examples. 8

3. (a) What is recursive decent parser ? Explain using suitable examples. 8
- (b) How a program is analyzed ? Explain in detail. 8

Unit II

4. (a) What is meant by finite state automata ? Explain using suitable examples. 8
- (b) Explain the concept of program validation and type promotion using suitable examples. 8
5. (a) Describe the concept of type checking and type conversion in various languages with suitable examples. 8
- (b) What do you mean by Context free grammar ? Explain using appropriate examples. 8

Unit III

6. Explain following in detail : 16
- | | |
|----------------------|--------------------------|
| (i) Inheritance | (ii) Polymorphism |
| (iii) Software reuse | (iv) Information hiding. |
7. Explain various sequence control commands in detail using suitable examples. 16

Unit IV

8. Explain following in detail : 16
- (i) Parallel programming (ii) Network programming
 - (iii) Coroutines (iv) Applet
9. (a) What is meant by exception ? How exception are handled ? Explain. 8
- (b) What is meant by storage management ? Explain static storage in detail. 8