

Roll No. ....

Total Pages : 02

BT-3/D-22

43332

PROGRAMMING LANGUAGE  
Artificial Intelligence and Machine Learning  
EC-CS-AIML-209A

Time : Three Hours]

[Maximum Marks : 75

**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit.

**Unit I**

1. (a) Discuss various characteristics of good programming language. 8
- (b) Write steps involved in implementing elementary data type with example. 7
2. (a) Define and explain the role of enumeration with suitable example. 8
- (b) Write short note on attribute grammar dynamic semantic. 7

**Unit II**

3. (a) Differentiate union and structure with example. 8
- (b) Discuss different design issues for object oriented languages. 7

4. (a) Define coercion, type error and type checking.  
Explain the usage of these with example. 8
- (b) Differentiate overloaded subprogram and generic subprogram. 7

### Unit III

5. (a) Discuss the design issues of subprogram and its operations performed on them. 8
- (b) Elaborate, how concurrency is provided using semaphores ? 7
6. (a) Define parameter. Discuss various parameter transmission schemes. 8
- (b) What do you mean by exception ? Discuss various methods to handle exceptions. 7

### Unit IV

7. (a) Differentiate stack based storage management and heap storage management. 7
- (b) Compare C and C++ programming language with example. 8
8. (a) Differentiate procedural and non-procedural language with example. 8
- (b) Discuss various phases in system controlled storage management. 7