

Roll No. ....

Total Pages : 2

**BT-3/D-21**

**43205**

**PRINCIPLES OF PROGRAMMING LANGUAGES**

**Paper-PC-CS-CYS - 209A**

Time : Three Hours]

[Maximum Marks : 75

**Note :** Attempt *five* questions picking at least *one* question from each unit.

**UNIT-I**

1. (a) Explain lexical and syntactical rules for describing syntax. (9)
- (b) What is assignment? What is initialization? Explain declarations. (6)
2. (a) Differentiate between compiler and interpreter. (6)
- (b) What is type? What is type checking? Explain static and dynamic type checking. (9)

**UNIT-II**

3. (a) Discuss the concept of vectors, and arrays — accessing and indexing. (8)
- (b) Explain different capabilities of file handling. (7)
4. (a) Explain the concept of abstraction, encapsulation, inheritance, and information hiding. (8)
- (b) Describe variable size data structures with examples. (7)

5. (a) What are exceptions? What are exception handlers? How do they work? (8)
- (b) What is concurrency? Compare sequence control and subprogram level concurrency. (7)
6. (a) Explain the concept of synchronization and mechanisms of doing it. (8)
- (b) Describe the concept of static and dynamic scope. What is local data and local referencing? (7)

#### UNIT-IV

7. (a) What is heap based storage management? (7)
- (b) What are the OOP features of C++ programming language? (8)
8. (a) What is storage management? Differentiate between programmer and system controlled storage management? (8)
- (b) What are the features of functional and of logic programming languages? (7)
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