

**BT-4/M09****9302****Programming Languages****Paper : CSE-204 E**

Time : Three Hours]

[Maximum Marks : 100

**Note :-** Attempt **FIVE** questions in all selecting at least **ONE** question from each unit.

**UNIT-I**

1. (a) Describe the brief History of Programming Languages. 8
- (b) Discuss type checking and type conversions. 8
- (c) Explain enumerations. 4
2. Write short notes on the following :- 20
  - (a) Formal method of describing syntax
  - (b) Compilers and Interpreters.

**UNIT-II**

3. (a) What is meant by declaration and type checking of Data Structure ? Explain. 12
- (b) Explain programmer defined data objects. 8
4. (a) Discuss generic subprograms. 8
- (b) Explain abstraction, encapsulation and information hiding. 12

**UNIT-III**

5. Write short notes on the following :- 20
  - (a) Sequence control within statement
  - (b) Synchronization through semaphores.
6. (a) Explain local data and local referencing environment. 12
- (b) Discuss exception handlers. 8

**UNIT-IV**

7. (a) Explain the working of stack based storage management. 10
- (b) Compare 'C' and 'C++' programming languages. 10
8. (a) Discuss heap storage management in detail. 10
- (b) Explain the following :
  - (i) Functional programming language
  - (ii) Non-procedural programming language. 10