

BT-4/J08**8629****Programming Languages****Paper : CSE-204-E****Option : II**

Time : Three Hours]

[Maximum Marks : 100

Note :— Students are required to attempt **FIVE** questions in all by selecting at least **ONE** question from each unit.

UNIT—I

1. (a) What is the need for studying a variety of different Programming Languages ? Also discuss the features of a good Programming Language. 15
- (b) Differentiate translator, compiler and interpreters. 5
2. (a) What is the purpose of declaration statement ? 5
- (b) Discuss the implementation of enumerated data-types. 5
- (c) What is the effect of type conversion on run time storage representation of the data-object ? 5
- (d) Discuss the specification of Boolean data types. 5

UNIT—II

3. (a) What is the vector data structure ? What are the attributes of a vector ? What operations are specified on vectors ? Discuss the implementation of vectors in detail. 15
- (b) Discuss the implementation of records. 5

4. Write short notes on following :
- (i) Declaration and type checking of data structure
 - (ii) Type definitions
 - (iii) Generic subprograms
 - (iv) Operations on data structures.
- 5×4=20

UNIT—III

5. Compare and contrast the following parameter transmission in terms of execution efficiency and power to produce side effects :
- (i) Call by Value
 - (ii) Call by Value-Result
 - (iii) Call by Reference.
- 20
6. What do you understand by sequence control ? Discuss sequence control using structured control statements. What are the disadvantages of structured control statements ?
- 20

UNIT—IV

7. Discuss heap storage management in detail. Also tell about variable and fixed size elements.
- 20
8. Write short notes on following :
- (i) Procedural and non-procedural Programming Languages
 - (ii) Functional and object-oriented Programming Languages
 - (iii) Static Storage Management
 - (iv) Major run time elements requiring storage.
- 5×4=20