B.E. Computer Technology Fifth Semester

CT505 - Design Principles of Programming Languages

P. Pages : 1 **GUG/W/18/1666**

Time : Three Hours * 1 3 1 0 * Max. Marks : 80

Notes : 1. All questions carry equal marks.
2. Due credit will be given to neatness and adequate dimensions.
3. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) What is translator? State and explain different types of translator in detail. **8**

b) Why to study programming languages. Discuss the attributes of good programming language. **8**

OR

2. a) Explain Rule-based and object oriented computational models in details. **8**

b) What is general Syntactic criteria. **8**

3. a) State the attributes of integer and floating point data types. Also explain their implementation. **8**

b) Explain Dynamic type checking with example. **8**

OR

4. a) Explain by giving proper examples. **8**
i) Types of files. ii) Strings.

b) Explain data objects. State and explain attributes of data objects. **8**

5. a) What is polymorphism? Explain it's implementation with examples. **8**

b) Define structured data type. Give specification and implementation of structured data type? **8**

OR

6. a) Define Vector's and explain giving examples. **8**

b) Write a note on: i) Activation Record ii) Generic Subprogram **8**

7. a) What are exceptions and exception handlers? Give example. **8**

b) Explain static scope rules associated with block structure language. **8**

OR

8. a) Discuss the various parameter transmission methods with examples. **8**

b) Explain with example infix, Prefix and Postfix notations. **8**

9. a) Explain Semaphore and deadlock in detail. **8**

b) Write a short note on storage management and it's phases. **8**

OR

10. a) What are the Principles of parallel programming languages. **8**

b) Explain Subprogram control. **8**

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