

4E2916

Roll No. : _____

Total Printed Pages : 3**4E2916**

B. Tech. (Sem. IV) (Reback) Examination, June/July - 2011
Computer Engg. & I.T.
4IT2 Principles of Programming Languages
(Common for C.S. & I.T.)

Time : 3 Hours]

[Total Marks : 80

[Min. Passing Marks : 24

*Attempt any five questions selecting one question from each unit.
 All questions carry equal marks. Schematic diagrams must be
 shown wherever necessary. Any data you feel missing suitably
 be assumed and stated clearly. Units of quantities
 used/calculated must be stated clearly.*

Use of following supporting material is permitted during examination.
 (Mentioned in form No. 205)

1. _____ Nil _____

2. _____ Nil _____

UNIT - I

- 1 (a) Explain different attributes of a good programming language. 8
 (b) Explain binding and binding time with example. 8

OR

- 1 (a) Explain structure and operation of a computer. 10
 (b) Explain different language paradigms. 6

UNIT - II

- 2 (a) Explain specification and implementation of elementary data type. 8

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[Contd...

- (b) Explain type checking and differentiate between type conversion and type coercion.

8

OR

- 2 (a) Explain specification of structured data types.

8

- (b) Explain type equivalence with example.

8

UNIT - III

- 3 (a) Explain subprogram definition and invocation.

8

- (b) Describe sequence control method for recursive subprogram.

8

OR

- 3 (a) Explain Exception and Exception handler.

8

- (b) Explain sequence control of conditional statements.

8

UNIT - IV

- 4 (a) What is scope, lifetime and visibility of a variable, compare local, non-local and global reference environment.

8

- (b) Explain different parameter passing mechanism.

8

OR

- 4 (a) Define tasks and task management. Explain different task synchronization methods.

8

- (b) Explain static and dynamic scope with a suitable example.

8



UNIT - V

- 5 (a) Explain storage management phases. 6
- (b) Explain static and stock based storage management. 10

OR

- 5 (a) Explain heap storage management for variable size element. 6
- (b) Discuss problems in recovery phase, reference count and garbage collection. 10