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C14-IT-503

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BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2018

DIT—FIFTH SEMESTER EXAMINATION

PRINCIPLES OF PROGRAMMING LANGAUGES

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Write about programming domains.
2. What is object-oriented programming?
3. Define parse tree.
4. Define axiomatic semantics.
5. Write about dangling pointers.
6. Define datatype and user-defined datatype.
7. List relational expressions.
8. Write about compound assignment operator.
9. Write different types of parameters.
10. List the desing issues of functions.

- * **Instructions :** (1) Answer *any five* questions.
 (2) Each questions carries **ten** marks.
 (3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. List the potential benefits of studying programming language concepts.

12. Prove that the given grammer in ambiguous.

$\langle \text{assing} \rangle \rightarrow \langle \text{id} \rangle = \langle \text{expr} \rangle$
 $\langle \text{id} \rangle \rightarrow A | B | C$
 $\langle \text{expr} \rangle \rightarrow \langle \text{expr} \rangle + \langle \text{expr} \rangle$
 $\quad | \langle \text{expr} \rangle * \langle \text{expr} \rangle$
 $\quad | (\langle \text{expr} \rangle)$
 $\quad | \langle \text{id} \rangle$

13. Write BNF notation for following :

- (a) For loop
 (b) If else condition
 (c) Structure

14. Define heterogeneous array. write about the desing of arrays.

15. Explain the guarded commands.

- 16.** (a) Explain unconditional statements.
 (b) Explain statement level control structures.

17. What are the advantages of subprograms? Explain different methods of parameter passing mechanism to subprograms.

* **18.** Discuss the importance of co-routines. In what ways co-routines different from conventional subprograms?

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