

4646**BOARD DIPLOMA EXAMINATION, (C-14)****MARCH /APRIL-2019****DIT – FIFTH SEMESTER COMMON EXAMINATION****PRINCIPLES OF PROGRAMMING LANGUAGES**

Time: 3 Hours

Max. Marks:80

PART-A**10X3=30M**

Instructions : 1) Answer **all** questions.
2) Each question carries Three marks.
3) Answer should be brief and straight to the point and shall not exceed simple sentence

- 1) State the need of Virtual machines.
- 2) List out different programming environments.
- 3) What are the uses of Parse trees?
- 4) Define Ambiguity in grammars.
- 5) Write any three differences between subtypes and derived types.
- 6) Define Union and free Union.
- 7) Define Coercion.
- 8) What is mixed mode assignment?
- 9) Define Lifetime of a variable.
- 10) Write any three differences between Static scope and Dynamic scope.

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PART-B

5X10=50M

Instructions:

- 1) Answer any **five** questions.
- 2) Each question carries ten marks.
- 3) The answer should be comprehensive and the criteria for valuation is content but not the length of the answer.

11) Compare Procedure oriented and object oriented programming.

12) Consider the grammar $E \rightarrow E + E$

$E \rightarrow E * E$

$E \rightarrow i$

Using the expression $5 + 6 * 7$, prove that the grammar is ambiguous.

13) Describe the features of BNF and Extended BNF.

14) Explain about subscript bindings and various array categories.

15) Explain different control structures used in programming languages.

16) Differentiate conditional and unconditional statements.

17) Explain Generic subprograms with an example.

18) Explain actual parameters and positional parameters with examples.

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