



C14-IT-503

4646

BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2018
DIT—FIFTH SEMESTER EXAMINATION

PRINCIPLES OF PROGRAMMING LANGUAGES

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. Differentiate between function-oriented programming and object-oriented programming.
2. List any three programming environments.
3. Define syntax and semantics.
4. Describe the operation of a language recognizer.
5. Define record, array and union.
6. What is an enumeration data type? Give an example in C.
7. What is a unary assignment operator? Give an example.

- * 8. Write the general form of nesting selectors in C.
- 9. Write about scope and lifetime of a variable.
- 10. What is a generic function?

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Discuss various programming domains and their associated languages.

12. Explain axiomatic semantics for common programming language features.

13. Explain in detail about denotational semantics.

14. Explain about primitive data types used in various languages.

15. Explain arithmetic and Boolean operators and expressions with suitable examples.

16. Write short notes on :

5+5

(a) Short-circuit evaluation

(b) Mixed mode Assignment

17. What is a sub-program? Explain the design issues for sub-programs.

18. Explain the concept of co-routines with examples.
