

15094 N

M.Sc. DEGREE EXAMINATION, OCTOBER / NOVEMBER 2018.

FIRST SEMESTER

Computer Science

Paper IV — PRINCIPLES OF PROGRAMMING LANGUAGES

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Write a short note on language evaluation criteria.
2. Differentiate between procedural languages and object-oriented languages.
3. Give the structure of an associative array.
4. Write a short note on the concept of binding.
5. Write any two design issues for arithmetic expressions.
6. What is an overloaded subprogram?
7. Give the applications of logic programming.
8. Compare the functional and imperative languages.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. (a) Explain about programming paradigms and multi paradigm languages.
(b) What are the potential benefits of studying programming language concepts?
- Or
10. (a) Discuss about various programming domains and their associated languages.
(b) What are the potential benefits of studying programming language concepts.

11. Explain various primitive data types with suitable examples.

Or

12. (a) Discuss about type-checking.

(b) What are the formal methods of describing syntax? Explain.

13. (a) Explain how subprogram names are passed as parameters?

(b) Define sub program. What are the distinct categories of Subprograms?

Or

14. Discuss the design issues of subprograms and operations.

15. Write on the following

(a) Explain the principles of ML.

(b) Explain about fundamentals of FPL.

16. Write on the following

(a) Introduction and overview of Logic programming.

(b) Basic elements of Prolog.

