13001

M.C.A. DEGREE EXAMINATION, DECEMBER 2019.

FIRST SEMESTER

Paper I — PROBLEM SOLVING AND PROGRAMMING USING C

Time : Three hours Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each questions carries 3 marks.

1. List and describe the types of programming languages.

2. Differentiate scanf( ), printf( ), getchar( ), putchar( ), gets and puts functions.

3. Differentiate while and do-while loops.

4. Give a brief overview on functions.

5. Define an array with an example.

6. Give a short note on the fundamentals of pointers.

7. Illustrate the concept of binary files.

8. Differentiate structures and unions with example.

PART B — (4 × 15 = 60 marks)

Answer ALL questions

Each questions carries 15 marks.

9. What is an operator? Explain the arithmetic, relational, logical, and assignment operators in C language.

Or

10. Give an introduction to c programming? explain the various data types used in programming with an example.

11. Explain the different types of loops in C with syntax and example.

Or

12. Explain the following statements with example.
    (a) Switch
    (b) Break
    (c) Continue
    (d) Comma
    (e) Goto

13. Write a c program to demonstrate multidimensional arrays.

Or

14. Explain the concept with illustration.
    (a) Pointers and one dimensional arrays
    (b) Pointers and multi dimensional arrays.

15. What are unformatted data files? Illustrate the opening, closing, reading, writing and processing a data file?

Or

16. Write a C program to demonstrate passing pointers to functions.