LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

B.Sc. DEGREE EXAMINATION - MATHEMATICS FOURTH SEMESTER - NOVEMBER 2016 MT 4504 - COMPUTER PROGRAMMING IN C

Date: 17-11-2016 Dept. No. Max.: 100 Marks

Time: 09:00-12:00

SECTION-A

ANSWER ALL THE QUESTIONS

 $(10 \times 2=20)$

- 1. Define int main () with a simple example.
- 2. Write a C program that will print your mailing address in the following

form: First line: Name

Second line: Door No, Street

Third line: City, Pin code.

- 3. What is initialization? Why is it important?
- 4. What are trigraph characters? How are they useful?
- 5. Distinguish between getchar function and scanf function.
- 6. Write down the general format of while statement in C.
- 7. Define an array.
- 8. Define a pointer increment and scale factor.
- 9. Define recursion with an example.
- 10. Distinguish between global and local variables.

SECTION-B

ANSWER ANY FIVE QUESTIONS

 $(5 \times 8=40)$

- 11. Explain about Arithmetic and Logical operators.
- 12. Write a C program to calculate the volume of a sphere.
- 13. Explain the do statement and the for statement.
- 14. Write a C program to explain the use of getchar function.
- 15. Write a note on initialization of one dimensional array.
- 16. Write a C program to compute the factorial of a positive number.
- 17. Define a pointer and list out any five benefits of pointers.
- 18. Write a C program to copy the contents of one file into another.

SECTION-C

ANSWER ANY TWO QUESTIONS

 $(2 \times 20=40)$

- 19.a) Write a brief note on if else statement and nesting of ifelse statement and the else if ladder using flow chart.
 - b) Write a C program to calculate the area of a rectangle.

(15+5)

- 20.a) Write a short note on Assignment operators, Increment –Decrement operators, Conditional operators, Bitwise operators and Special operators.
 - b) Write a C program to generate the Fibonacci series.

(12+8)

- 21. Write a brief note on initialization of two dimensional arrays and also write a C program to compute and print a multiplication table for number 1 to 5.
- 22.a) Write a C program to find matrix addition.
 - b) Explain the following categories (i) Functions with arguments and no return values,
 - (ii) Functions with no arguments and no return values.

(10+10)
