

# Department of Computer Science and Engineering, Anna University, Chennai- 600025 CS6104 – Data Structures and Algorithms (R 2018) Practical

August - December 2023 Year/Sem/Batch : II/III/ P

Exercise: 01

### Review of C Programming

31 - Aug- 2023

#### Observation (5 Marks)

### Write a brief note on the following

- 1. Data Types
  - Primitive Data type
  - User Defined Data type
  - Derived Data type
  - Enumerated Data type
- 2. Control Structures
  - Conditional Control
  - Unconditional control
- 3. Branching
  - For
  - While
  - Do while
- 4. Functions
- 5. Pointers
- 6. Files

### Execution (15 Marks)

Write a C program for the following problems.

- 1. Reverse an array of numbers.
- 2. Find the length of the string,
  - Without pointer.
  - With pointer.
- 3. Compare any two strings use pointers.
- 4. Perform matrix multiplication no pointer manipulation.
- 5. Perform matrix subtraction use pointers.
- 6. Find area/volume of different shapes (any 3) using different programming modules.
- 7. Read and store students' enrollment details use structure ( NOT AS FILE ). (\* apply passing structure as a function argument approach).
- 8. Same as Q7 use pointer as argument.

- 9. Generate nth Fibonacci term use recursive function.
- 10. Create a list of players of your favorite game. Allow all possible updation to the list use self referential structure.

## Spot (5 Marks)

1. Write a C program to left rotate an array by n position

