Tutorial No.1

1.Explain the role of assembler, compiler, loader, and linker in the compilation process. Compare and contrast their functionalities.

2. Draw a block diagram illustrating the phases in a compiler and elucidate the main functions of each phase. Incorporate the concept of optimization and describe how it fits into the compilation process.

3. Define lexical analysis and expound upon its role in the compilation process.

4. Outline the steps involved in converting a Non-Deterministic Finite Automaton (NDFA) into a Deterministic Finite Automaton (DFA), emphasizing the significance of determinism in automata theory.

5. Construct a Non-Deterministic Finite Automaton (NDFA) to accept the regular expression: (0+1)* (00+11) (0+1)*