Syllabus of FLAT

1. NFA and examples [Slides Given]
2. DFA and examples [Slides given]
3. NFA to DFA conversion [Slides given]
4. Regular Languages – Closure Properties [Slides given]
5. Regular Grammar and Conversion to and from NFA [Slides given]
6. Regular Expression [Slides given]
7. Regular Expression to NFA/DFA conversion [Slides given]
8. DFA to Regular Expression Conversion [Slides given]
9. Pumping Lemma for Regular Expressions [Slides given]
10. Context Free Grammar – Parse Tree, Derivations [Slides given]
11. Context Free Grammar Closure Properties [Slides Given]
12. Context Free Grammar Normal Form [Slides given]
13. Push Down Automata (PDA) [Slides given]
14. Parsing problem of Context Free Grammar [Slides not given; taught in the class]
15. Context Free Grammar – Pumping Theorem [Slides given]
16. Context Free Grammars and PDAs [Slides given]
17. Deterministic PDA [Slides given]
18. Closure Properties of Deterministic Context Free Languages [pdf given]
19. Turing Machines (TM), Computing with Turing Machines [Slides given]
20. Combining Turing Machines: Shift TM and Copy TM [Read the url mentioned in a slide]
21. Variations of Turing Machines [Slides given]
22. Encoding of TM and Universal TM [Slides given]
23. Recursive Language and Recursively Enumerable Language [Slides given]
24. Undecidable problems in Grammar [pdf given]
25. Undecidable problems for TMs and Problem Reduction [Slides and pdf given]
26. Context Sensitive Grammars [Taught in the class; example to be given]