

Class Test 2

*Who appeared the *Class Test1*, needs to answer any 30 marks only.

*Those who missed the *Class Test1*, needs to answer all questions.

1. Design an NFA or DFA which recognise the following key words “while”, “for”, and “if” over the English alphabet. *10 marks*
2. Is $L = \{w \mid w \text{ is of the form } 0^n 1^m 2^n, \text{ for all } n, m > 0\}$ regular? Prove your answer. *10 marks*
3. Design CFG for L; where $L = \{w \mid w \text{ is of the form } 0^n 2^{2n}, \text{ for all } n > 1\}$ *10 marks*
4. Design a PDA for L; where $L = \{w \mid w \text{ is of the form } 0^n 2^{2n}, \text{ for all } n > 1\}$ *10 marks*
5. What is ambiguity in CFG? Explain with example. *10 marks*