

UNIT-III

- 5 a State what is meant by derivation and parse tree with examples. CO3 L1 4M
b Construct Leftmost, Rightmost derivation and derivation tree for the string CO3 L6 8M
0100110.
S → 0S/1AA
A → 0/1A/0B
B → 1/0BB

OR

- 6 a Define Greibach Normal Form CO3 L1 2M
b Convert the following grammar into Greibach Normal Form. CO3 L3 10M
S → AA/a
A → SS/b

UNIT-IV

- 7 Construct a PDA to accept the language $L = \{a^n b^{2n}, n \geq 1\}$ by empty stack and final state. CO4 L6 12M

OR

- 8 Construct PDA from the following Grammar. CO4 L6 6+0
M
(i) $S \rightarrow Ab, B \rightarrow bA/b, A \rightarrow aB$
(ii) $S \rightarrow 0BB, B \rightarrow 0S/1S/0$

UNIT-V

- 9 Design a Turing Machine to accept the set of all palindrome over $\{0,1\}^*$. Draw the transition diagram for the same. CO5 L6 12M
OR
10 Explain the various types of Turing machine. CO5 L2 12M

*** END ***