



KDK College of Engineering, Nagpur

Dept. of Computer Technology

Session: 2017-18

Subject Name: Theory Of Computation

Sem / Branch: IV Sem/ CT

Subject Code: BECT211T

K.D.K COLLEGE OF ENGINEERING,NAGPUR

DEPARTMENT OF COMPUTER TECHNOLOGY

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Submission Date: 15/3/18

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ASSIGNMENT IV

| SR. NO. | QUESTION | CO | PO |
|---------|---|----|---------|
| 1 | Construct a pushdown automata to accept the following language 1) $L = \{a^n b^n \mid n \geq 1\}$ 2) $L = \{WcW^R \mid W \in (a,b)^*\}$ 3) $L = \{0^n 1^m 0^{m+n} \mid n,m \geq 1\}$ 4) $L = \{a^n b^{3n} \mid n \geq 0\}$ 5) $L = \{a^n b^{n+m} c^m \mid n, m \geq 0\}$ | 4 | 1,2,3,4 |
| 2 | Construct a PDA M equivalent to following context free grammar $S \rightarrow aAA$ $A \rightarrow aS \mid bS \mid a$ | 4 | 1,2,3,4 |
| 3 | Construct PDA for the matching parenthesis “ (()) “ | 4 | 1,2,3,4 |

Subject In charge
Prof. V. R. Surjuse

HOD, Dept. of CT
Dr. A. A. Jaiswal