Course Code: 23A05503 **R23**

K.L.M. COLLEGE OF ENGINEERING FOR WOMEN-KADAPA
(Under the auspices of Smt. Kandula Lakshumma Memorial Educational Socity Reg.395/2007)
(Approved by AICTE, New Delhi & Affiliated to JNTUA, Anantapuramu)
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KSNR lives on..

PART-A

Q.No	Questions	Marks	BL	CO	Unit No
MID-I Questions					
1	Define DFA.	2	L1	CO1	I
2	Define NFA.	2	L1	CO1	I
3	Write DFA for the language over {0,1} : set of all strings that contain 100 as substring.	2	L1	CO1	I
4	What is ε-closure ()?	2	L1	CO1	I
5	Design NFA to accept set of all strings over {0,1} does not contain 3 consecutive zeros.	2	L1	CO1	I
6	Define NFA with ϵ-moves.	2	L1	CO1	I
7	Define Kleene Closure and Positive Closure.	2	L1	CO2	II
8	For the Grammar {S → AS | a , A → SbA | SS | ba} construct Left most derivation for the string aabbaaa.	2	L1	CO2	II
9	Define ambiguity in CFG with an example.	2	L1	CO2	II
10	Write down the formal statement of pumping lemma.	2	L1	CO2	II
11	Perform right most derivation for the string aaabbabbba with respect to the Grammar S → aB | bA , A →a| aS | bAA , B→b | bS | aBB	2	L1	CO2	II
12	What is meant by name equivalence?	2	L1	CO2	II
13	Give the formal definition of PDA.	2	L1	CO3	III
14	What is the representation of State Transition in PDA?	2	L1	CO3	III
15	What is a Turing Machine?	2	L1	CO3	III
16	Define undecidability. Give an example of undecidable problems.	2	L1	CO3	III

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PART-A

17	Differentiate multihead and multitape Turing Machine.	2	L1	CO3	III
18	Define NP hard and NP completeness problem.	2	L1	CO3	III
19	Write about Lex and Lex specifications.	2	L1	CO4	IV
20	What are types of LR parsers? Compare them.	2	L1	CO4	IV
21	What are the conflicts occur during shift-reduce parsing.	2	L1	CO4	IV
22	What are the rules for FIRST function?	2	L1	CO4	IV
23	What are the rules for FOLLOW function?	2	L1	CO4	IV
24	What is the purpose of lexical analysis?	2	L1	CO4	IV
25	Define Dead code elimination.	2	L1	CO5	V
26	What are the benefits of intermediate code generation?	2	L1	CO5	V
27	What is a DAG? Mention its applications	2	L1	CO5	V
28	What are the various types of intermediate code representation?	2	L1	CO5	V
29	What is relocatable machine code?	2	L1	CO5	V
30	Construct a DAG for the expression a=b*-c + b*-c	2	L1	CO5	V

Prepared by:
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