Sample MID-I Question paper:

ISO 9001:2015 Certified Institution Estd.:2001
Balaji Institute of Technology & Science
Laknepally (V), Narsampet (M), Warangal District - 506 331, Telangana State, India
(AUTONOMOUS)
Accredited by NBA (UG - CE, EEE, ME, ECE & CSE) & NAAC A+ Grade
(Affiliated to JNT University, Hyderabad and Approved by AICTE, New Delhi)
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Course & Branch	:	B.Tech – CSE
Year& Semester	:	II year II semester
Subject & Code	:	**Formal Language and Automata Theory**
Duration	:	**6**0minutes
Max Marks	:	**1**0 Marks
Date of Examination	:	23-06-2023FN

Q.No	Question	Marks	Level of Bloom Taxonomy	CO
1	a) a finite automaton accepting all strings over {0, 1} having even number of 0's and even number of 1's ? b) Construct a finite automaton accepting all strings over {0, 1} starts with abb ?	5	Analyzing	1
	● Language writing: 1+1 mark ● Construction of finite automata: 1.5+1.5 marks			
2	a) Construct a DFA for the regular expression (0+1)* using subset method? b)Regular expression denoting language with strings starting with a and ending with b's? c) Regular expression for the set {abb,a,b,bba}	5	Applying	2
	● Language writing: 1+1 mark ● Construction of finite automata: 1+1 marks ● Regular expression: 1 mark			
3	a) List down the Identity Rules for the Regular Expression? b) Explain the Arden's theorem?	5	Understanding	3

Sample MID-II Question paper:

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Course & Branch	:	B.Tech – CSE
Year& Semester	:	II year II semester
Subject & Code	:	**Formal Language and Automata Theory**
Duration	:	**6**0minutes
Max Marks	:	**1**0 Marks
Date of Examination	:	25-08-2023FN

Q.No	Question	Marks	Level of Bloom Taxonomy	CO
1	Construct a PDA to accept the language L $=\{a^n b^{2n} \mid n >= 1\}$ by a final state. Draw the graphical representation of the PDA. Also show the moves made by the PDA for the string aaabbbbbb.	5	Analyzing	3
	• Language: 1 mark • Graph of PDA: 2 marks • Moves for a given String: 2 marks			
2	Construct a Turing Machine that accepts the language $L = \{0^n 1^n \mid n \geq 1\}$. Give the transition diagram for the Turing Machine obtained and also show the moves made by the Turing machine for the string 000111.	5	Applying	4
	• Language: 1 mark • Graph of Turing Machine: 2 marks • Moves for a given String: 2 marks			
3	Explain about post correspondence problem.	5	Understanding	5
	• Introduction: 1 mark • Explanation: 2 marks • Example: 1 mark • Conclusion: 1 mark			