

UNIT-IV

S.No	Questions	BT	CO
Part-A:ShortAnswerQuestions			
1	Define Turing Machine?	L1	CO4
2	What is Type 1 grammar?	L1	CO4
3	Design TM for $L=\{0^n1^n0^n n \geq 1\}$	L2	CO4
4	Define Recursively enumerable language?	L1	CO4
5	Construct TM to add two given integer?	L2	CO4
6	What are the types of TM?	L1	CO4
7	What are the properties of Recursive and recursively Enumerable language?	L1	CO4
8	Define Church's Hypothesis?	L1	CO4
9	What are the limitations of TM?	L2	CO4
10	Make a comparison between FM, PDA and TM?	L2	CO4
Part-B Long Answer Questions			
11	a) Explain TM in Brief?	L1	CO4
	b) Explain importance and limitations of TM?	L1	CO4
12	a) Given $\Sigma = \{0,1\}$, design a TM that accepts the language denoted by regular expression 00^*	L3	CO4
	b) Design ATM that accepts $L=\{a^n b^n n \geq 0\}$	L3	CO4
13	a) Explain counter machine in details?	L2	CO4
	b) Make a compare between PDA and TM?	L2	CO4
14	a) Explain with diagram for the working of a TM model?	L1	CO4
	b) Design a TM that accept $L=\{0^{2n}1^n n \geq 0\}$	L3	CO4
15	a) Construct a Multi track TM for checking a given number is prime or not?	L3	CO4
	b) Construct a TM for $\Sigma=\{a,b\}$ which will convert lowercase to uppercase letters.	L3	CO4