

UNIT-V

S.No	Questions	BT	CO
1	What is P class?	L1	CO5
2	State and explain rice theorem?	L2	CO5
3	What are the difference between NP-Hard and NP-complete?	L1	CO5
4	What is Hierarchy Theorem?	L1	CO5
5	Is the language $a^n b^n c^n$ is context sensitive?	L2	CO5
6	What is halting problem is its lovable?	L1	CO5
7	Explain halting problem of TM?	L1	CO5
8	What is Decidability? Explain with example?	L1	CO5
9	Explain Universal TM?	L1	CO5
10	What is COUNTER Machine?	L1	CO5
11	a) What is P, NP, NP-complete and NP-hard?	L1	CO5
	b) Explain Chomsky Hierarchy in details?	L2	CO5
12	a) What Is PCP? Or Universal TM	L2	CO5
	b) Explain Homomorphism i) Recursive language	L1	CO5
13	a) What is Turing Machine and Multi tape Turing Machine? Show that the languages accepted by these machines are same.	L1	CO5
	b) What is decidability of a problem explain in details?	L1	CO5
14	a) Design Turing Machine for the language to accept the set of strings with equal number of 0's and 1's and also give the instantaneous description for the input '110100'.	L3	CO5
	b) What is halting problem and Turing reducibility?	L1	CO5
15	a) Define LR(0) grammars.	L1	CO5
	b) Give examples for Undecidable Problems	L2	CO5

* **Blooms Taxonomy Level (BT)** (L1 – Remembering; L2 – Understanding; L3 – Applying; L4 – Analyzing; L5 – Evaluating; L6 – Creating)