

 <p><b>SASTRA</b> ENGINEERING · MANAGEMENT · LAW · SCIENCES · HUMANITIES · EDUCATION DEEMED TO BE UNIVERSITY 10/3/3 OF THE UGC ACT, 1956 THINK MERIT · THINK TRANSPARENCY · THINK SASTRA</p>	<p><b>School of Computing</b> <b>Course Code: CSE405R02</b> <b>Course Name: Natural Language Processing</b> <b>Duration: 3 hrs      Max Marks: 50</b></p>
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### Question 5

- Using CYK algorithm find the inside probability of the sentence “**Students like painting**”

S -> NN VP	0.50	S -> VP NP	0.50
NP -> NN PP	0.70	NP -> PP NN	0.30
VP -> VB NP	0.30	VP -> VP NP	0.20
VP -> VB NN	0.35	VP -> VB PP	0.15
PP->P VP	0.50	PP->P NN	0.50
P -> with	0.30	P -> without	0.15
P->after	0.25	P->before	0.10
P->to	0.15	P->into	0.05
VB -> play	0.20	VB -> enjoy	0.20
VB -> watch	0.20	VB-> like	0.15
VB->enjoy	0.15	VB->listen	0.10
NN -> children	0.15	NN->students	0.10
NN -> cricket	0.15	NN-> football	0.15
NN -> friends	0.20	NN -> painting	0.25

- Design RNN based python machine translation system.

**File name:**

**Q6 MT Eng Hin Dataset**

**Q8 MT Eng Kann Dataset**