

 SASTRA ENGINEERING · MANAGEMENT · LAW · SCIENCES · HUMANITIES · EDUCATION DEEMED TO BE UNIVERSITY 10/13/3 OF THE UGC ACT, 1956 THINK MERIT · THINK TRANSPARENCY · THINK SASTRA	School of Computing Course Code: CSE405R02 Course Name: Natural Language Processing Duration: 3 hrs Max Marks: 50
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Question 6

- Using CYK construct the parse tree for the sentence “**children like to listen to music**” and find the most probable parse of the given sentence.

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 -> music	0.25

- Design text generator using LSTM and generate words based on the input provided.
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