tag	accuracy	f1 score	accuracy for unknown words	accuracy for known words	number of unknown words	number of known words
A (إسم)	94.84 %	93.22 %	81.82 %	95.54 %	11	202
B (رقم)	100.0 %	100.0 %	100.0 %	100.0 %	9	178
C (إسم معرف)	94.52 %	58.09 %	77.78 %	95.62 %	9	137
D (إضافة)	85.61 %	64.11 %	21.43 %	92.8 %	14	125
E (منعوت)	94.44 %	93.12 %	33.33 %	96.79 %	6	156
F (نعت)	88.33 %	83.27 %	71.43 %	89.76 %	14	166
G (حرف جر)	95.45 %	32.56 %	100.0 %	95.35 %	1	43
H (إسم مجرور)	74.36 %	50.37 %	52.63 %	95.0 %	19	20
I (وحدة قيس)	98.96 %	49.74 %	100.0 %	98.94 %	2	94
J (واو العطف)	100.0 %	100.0 %	NULL	100.0 %	0	26
K (فعل مبني للمجهول)	88.89 %	47.06 %	66.67 %	93.33 %	3	15
L (المفعول المطلق)	0.0 %	0.0 %	0.0 %	NULL	2	0
M (أداةُ عَطْفٌ غير واو العطف)	100.0 %	100.0 %	NULL	100.0 %	0	1
.	100.0 %	100.0 %	NULL	100.0 %	0	784

Table 1: Performances for each tag using our ingredient extractor for fold 2 with $\lambda = 4$ when accuracy is 100% on first layer

tag	accuracy	f1 score	accuracy for unknown words	accuracy for known words	number of unknown words	unknown words percentage
0	95.78 %	67.91 %	61.11 %	97.38 %	78	9.67 %
1	94.38 %	66.54 %	68.85 %	95.92 %	107	13.26 %
2	95.08 %	67.39 %	67.96 %	96.54 %	88	10.9 %
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
Avg	-	-	-	-	-	-

Table 2: Performances in predicting ingredients states for fold 2 with $\lambda = 4$ when accuracy is 100% on first layer