tag	accuracy	f1 score	accuracy for unknown words	accuracy for known words	number of unknown words	number of known words
A (إسم)	93.81 %	62.67 %	63.64 %	95.35 %	11	215
B (رقم)	99.52 %	49.88 %	100.0 %	99.49 %	12	196
C (إسم معرف)	90.17 %	61.62 %	68.75 %	92.36 %	16	157
D (إضافة)	89.53 %	88.49 %	64.29 %	91.77 %	14	158
E (منعوت)	97.1 %	64.49 %	70.0 %	99.22 %	10	128
F (نعت)	74.86 %	50.78 %	60.0 %	76.77 %	20	155
G (حرف جر)	94.74 %	32.43 %	50.0 %	97.22 %	2	36
H (إسم مجرور)	70.0 %	48.81 %	41.67 %	82.14 %	12	28
I (وحدة قيس)	98.02 %	55.22 %	100.0 %	97.94 %	4	97
J (واو العطف)	96.77 %	49.18 %	NULL	96.77 %	0	31
K (فعل مبني للمجهول)	84.0 %	45.65 %	100.0 %	82.61 %	2	23
L (المفعول المطلق)	100.0 %	100.0 %	NULL	100.0 %	0	1
M (أداةُ عَطْفٌ غير واو العطف)	100.0 %	100.0 %	NULL	100.0 %	0	13
.	100.0 %	100.0 %	NULL	100.0 %	0	393

Table 1: Performances for each tag using a first order HMM for fold 4

tag	accuracy	f1 score	accuracy for unknown words	accuracy for known words	number of unknown words	unknown words percentage
0	94.77 %	67.67 %	67.78 %	96.33 %	78	9.67 %
1	93.02 %	65.56 %	63.93 %	95.2 %	107	13.26 %
2	94.15 %	67.44 %	69.9 %	95.81 %	88	10.9 %
3	94.01 %	87.89 %	62.65 %	95.7 %	75	9.29 %
4	93.14 %	87.59 %	67.96 %	94.73 %	92	11.4 %
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
Avg	-	-	-	-	-	-

Table 2: Performances using a first order HMM for fold 4