

tag	accuracy	f1 score	accuracy for unknown words	accuracy for known words	number of unknown words	number of known words
A (إسم)	94.19 %	91.75 %	83.87 %	95.71 %	31	210
B (رقم)	99.34 %	83.17 %	100.0 %	99.32 %	5	146
C (إسم معرف)	91.36 %	90.45 %	83.33 %	92.36 %	18	144
D (إضافة)	83.85 %	62.98 %	58.82 %	86.81 %	17	144
E (منعوت)	97.33 %	97.85 %	75.0 %	97.95 %	4	146
F (نعت)	71.69 %	56.37 %	52.63 %	74.15 %	19	147
G (حرف جر)	100.0 %	100.0 %	NULL	100.0 %	0	26
H (إسم مجرور)	68.42 %	46.23 %	40.0 %	78.57 %	5	14
I (وحدة قياس)	100.0 %	100.0 %	NULL	100.0 %	0	79
J (واو العطف)	96.3 %	49.06 %	NULL	96.3 %	0	27
K (فعل مبني للمجهول)	75.0 %	28.57 %	66.67 %	77.78 %	3	9
L (المفعول المطلق)	0.0 %	0.0 %	0.0 %	NULL	1	0
M (أداة عطف غير واو العطف)	83.33 %	45.45 %	NULL	83.33 %	0	6
.	100.0 %	100.0 %	NULL	100.0 %	0	812

Table 1: Performances for each tag using a second order HMM for fold 2

tag	accuracy	f1 score	accuracy for unknown words	accuracy for known words	number of unknown words	unknown words percentage
0	93.72 %	64.13 %	70.0 %	94.81 %	78	9.67 %
1	92.53 %	63.0 %	64.75 %	94.19 %	107	13.26 %
2	94.14 %	65.6 %	70.87 %	95.39 %	88	10.9 %
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
Avg	-	-	-	-	-	-

Table 2: Performances using a second order HMM for fold 2