## CS-5340/6340, Written Assignment #1 Anirudh Narasimhamurthy(u0941400)

- 1. (40 pts, 1/2 pt per word) For each sentence below, label each word with its correct part-of-speech (POS) tag based upon the word's use in the sentence. Punctuation should be ignored.
  - (a) Dan slid sideways down the hill and broke out in laughter.

    Solution: Dan/NOUN slid/VERB sideways/ADV down/PREP the/ART hill/NOUN and/CONJ broke/VERB out/PART in/PREP laughter/NOUN
  - (b) Children may like candy but eating sugary foods is unhealthy.

    Solution: Children/NOUN may/MOD like/VERB candy/NOUN but/CONJ eating/VERB sugary/ADJ foods/NOUN is/VERB unhealthy/ADJ
  - (c) My brother did not plan to take sleeping pills although he got no sleep yesterday. **Solution:** My/POSSPRO brother/NOUN did/VERB not/ADV plan/VERB to/INF take/VERB sleeping/GER pills/NOUN although/CONJ he/PERPRO got/VERB no/ADJ sleep/NOUN yesterday/ADV
  - (d) He often snores like an aardvark.

    Solution: He/PERPRO often/ADV snores/VERB like/PREP an/ART aardvark/NOUN
  - (e) Mary ran inside after rain began to fall.

    Solution: Mary/NOUN ran/VERB inside/PREP after/CONJ rain/NOUN began/VERB to/INF fall/VERB
  - (f) The armed man took off when police showed up.

    Solution: The/ART armed/ADJ man/NOUN took/VERB off/PART when/CONJ police/NOUN showed/VERB up/PART
  - (g) The kittens sleeping in her lap are very young.

    Solution: The/ART kittens/NOUN sleeping/VERB in/PREP her/POSSPRO lap/NOUN are/VERB very/ADV young/ADJ
  - (h) She just completed a singing competition, which could make her a star.

    Solution: She/PERPRO just/ADV completed/VERB a/NOUN singing/GER competition/NOUN, which/RELPRO could/MOD make/VERB her/POSSPRO a/ART star/ADJ

- 2. (20 pts) For each sentence below, indicate whether the main verb appears in an *intransitive* construction, a *transitive* construction, or a *ditransitive* construction. Only give the answer *transitive* if the usage is not *ditransitive*.
  - (a) The dog barked at the cat.

Solution: transitive

(b) The man fed the squirrels peanuts.

**Solution:** ditransitive

(c) Susan slept for ten hours.

**Solution:** intransitive

(d) George broke the window with his fist.

Solution: transitive

(e) Mary loaned her neighbor a bicycle for a week.

**Solution:** ditransitive

(f) Ted donated five hundred dollars to his favorite charity.

**Solution:** ditransitive

(g) Wilma married Fred in a rock quarry.

Solution: transitive

(h) Sam bought flowers for his mom.

**Solution:** ditransitive

(i) The cat frequently sits on the front porch.

Solution: transitive

(j) She gave a raise to her best employee for his great work.

Solution: ditransitive

- 3. (20 pts) For each sentence below, indicate whether the main verb appears in an *active* voice verb phrase or a *passive* voice verb phrase.
  - (a) Dr. Seuss has written many books.

Solution: Active voice

(b) Tim will be organizing a charity event.

Solution: Active voice

(c) Cathy has been hired by IBM.

Solution: Passive voice

(d) Walter will be evaluated for a raise in October.

Solution: Passive voice

(e) Tropical storm Fred has strengthened into a hurricane.

Solution: Active voice

(f) The battle is being fought on several fronts.

Solution: Passive voice

(g) The cougar was hiding in a bush.

Solution: Active voice

(h) The dog has been taught twenty difficult tricks.

Solution: Passive voice

(i) She will have achieved a record in gymnastics.

Solution: Active voice

(j) He should have won the award.

Solution: Active voice

4. (20 pts) Consider the following morphology rules and dictionary:

	Suffix	Prefix	Replacement	POS of	POS of
			Chars	root word	derived word
Rule #1	s	-	-	NOUN	NOUN
Rule #2	s	_	-	VERB	VERB
Rule #3	er	_	_	VERB	NOUN
Rule #4		re	_	VERB	VERB
Rule #5	-	anti	_	NOUN	ADJECTIVE

Dictionary			
Word	Part-of-Speech		
seizure	NOUN		
form	VERB		

For each word below, indicate whether that word CAN or CANNOT be successfully derived as having the specified part-of-speech using the morphology rules and dictionary above:

(a) antiseizure ADJECTIVE

Solution: CAN

(b) seizures VERB

Solution: CANNOT

(c) antiseizures NOUN Solution: CANNOT

(d) antiseizures ADJECTIVE

Solution: CAN

(e) reforms NOUN

Solution: CANNOT

(f) reforms VERB **Solution:** CAN

(g) antireform ADJECTIVE **Solution:** CANNOT

(h) rereform VERB

Solution: CANNOT

(i) reformer NOUN **Solution:** CAN

(j) reformers VERB **Solution:** CAN

## Question #5 is for CS-6340 students ONLY!

5. (15 pts) Consider the following five subcategorization frames:

NP
NP NP
PP(against)
PP(from) PP(to)
VP(to)

For each verb below, list  $\underline{\text{ALL}}$  of the subcategorization frames in the list above that should be associated with the verb. If a verb should not have ANY of these subcategorization frames, then give the answer NONE.

HINT: most of the verbs should have 1 or 2 of the subcategorization frames in the list above.

(a) snore

Solution: None

(b) drive

Solution: NP, VP(to)

(c) expect

Solution: NP, VP(to)

(d) fight

**Solution:** PP(against), VP(to)

(e) sip

Solution: NP

(f) sing

Solution: NP, VP(to)

(g) lean

**Solution:** PP(against), VP(to)

(h) smile

Solution: NP

(i) lend

**Solution:** NP, NP NP Ex: He lent a book

He lent Mary a book(NP NP)

(j) increase

Solution: PP(from) PP(to), VP(to)