87.5

CS-5340/6340, Written Assignment #1 DUE: Wednesday, Sept. 9, 2015 by 11:00pm

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.

Choose from the following list of part-of-speech tags: adjective (ADJ), adverb (ADV), article (ART), conjunction (CONJ), gerund (GER), infinitive "to" (INF), modal (MOD), noun (NOUN), particle (PART), preposition (PREP), personal pronoun (not possessive) (PERPRO), possessive pronoun (POSSPRO), relative pronoun (RELPRO), verb (VERB).

For infinitive verb phrase constructions, label "to" as INF and the verb itself as VERB.

NOTE: An easy way to show your part-of-speech tags is to append a slash and POS tag after each word. For example: "Natural/ADJ language/NOUN is/VERB fun/ADJ."

(a) Dan slid sideways down the hill and broke out in laughter.

Answer: Dan/NOUN slid/VERB sideways/ADV down/PREP the/ART hill/NOUN and/CONJ broke/VERB out/ADV in/PREP laughter/NOUN.

(b) Children may like candy but eating sugary foods is unhealthy.

Answer: Children/NOUN may/MOD like/PREP candy/NOUN but/CONJ eating/GER sugary/ADJ foods/NOUN is/VERB unhealthy/ADJ.

(c) My brother did not plan to take sleeping pills although he got no sleep yesterday.

Answer: My/POSSPRO brother/NOUN did/VERB not/ADV plan/NOUN to/INF take/VERB sleeping/GER pills/NOUN although/CONJ he/PERPRO got/VERB no/ADV sleep/VERB yesterday/ADV.

(d) He often snores like an aardvark.

Answer: He/Perpro often/ADV snores/Verb like/Prep an/ART aardvark/NOUN.

(e) Mary ran inside after rain began to fall.

Answer: Mary/Noun ran/Verb inside/Adv after/Prep rain/Noun began/Verb to/Inf fall/Verb.

(f) The armed man took off when police showed up.

Answer: The/ART armed/ADJ man/NOUN took/VERB off/PART when/CONJ police/NOUN showed/VERB up/PREP.

(g) The kittens sleeping in her lap are very young.

Answer: The/ART kittens/NOUN sleeping/GER 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.

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

- 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.

Answer: Main Verb - barked, transitive

(b) The man fed the squirrels peanuts.

Answer: Main Verb - fed , ditransitive

(c) Susan slept for ten hours.

Answer: Main Verb - slept, transitive

(d) George broke the window with his fist.

Answer: Main Verb - broke, ditransitive

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

Answer: Main Verb - loaned, ditransitive

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

Answer: Main Verb - donated, ditransitive

(g) Wilma married Fred in a rock quarry.

Answer: Main Verb - married, ditransitive

(h) Sam bought flowers for his mom.

Answer: Main Verb - bought, transitive

- 14

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

Answer: Main Verb - sits, transitive

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

Answer: Main Verb - gave, ditransitive

3.	, -	pts) For each sentence below, indicate whether the main verb appears in an $active$ voice phrase or a $passive$ voice verb phrase.
	(a)	Dr. Seuss has written many books.
		Answer: Main Verb - written, active
	(b)	Tim will be organizing a charity event.
		Answer: Main Verb - organizing, active
	(c)	Cathy has been hired by IBM.
		Answer: Main Verb - hired, passive
	(d)	Walter will be evaluated for a raise in October.
		Answer: Main Verb - evaluated, passive
	(e)	Tropical storm Fred has strengthened into a hurricane.
	(f)	The battle is being fought on several fronts.
		${\bf Answer:} passive$
	(g)	The cougar was hiding in a bush.
		Answer: active
	(h)	The dog has been taught twenty difficult tricks.
		Answer: passive
	(i)	She will have achieved a record in gymnastics.
		Answer: active
	(j)	He should have won the award.
		Answer: active

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		_	-	VERB	VERB
Rule #3	er	-	-	VERB	NOUN
Rule #4	-	re	-	VERB	VERB
Rule #5	-	anti	-	NOUN	ADJECTIVE

\mathbf{I}	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

Answer: CAN

(b) seizures VERB

Answer: CANNOT

(c) antiseizures NOUN

Answer: CANNOT

(d) antiseizures ADJECTIVE

Answer: CAN

(e) reforms NOUN

Answer: CANNOT

(f) reforms VERB

Answer: CAN

(g) antireform ADJECTIVE

Answer: CANNOT

(h) rereform VERB

Answer: CAN

(i) reformer NOUN

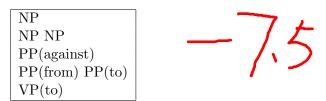
Answer: CAN

(j) reformers VERB

Answer: CANNOT

Question #5 is for CS-6340 students ONLY!

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



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

Answer: NONE

(b) drive

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

(c) expect

Answer: NP 🔾 🗕

(d) fight

Answer: NP NP e.g The battle of Waterloo was fought between Napoleon and the Duke of Wellington

(e) sip

Answer: NP

(f) sing

Answer: NONE - 1

(g) lean

Answer: PP(against)

(h) smile

Answer: NONE

(i) lend

Answer: NP, NP NP —0.5

(j) increase

Answer: NP 0

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