HSS PhD Entrance Examination
Linguistics

Date: 15th May 2019
Total Marks: 100

Note:

- Section 1 is compulsory. It carries 40 points.
- Attempt any other two sections. Each section totals to 30 points.
- Write your answers in the space provided below each question. Use the space provided after each question judiciously. Verbosity will not be rewarded. Be precise.
- Do not cheat. If you are caught cheating your application will stand canceled.

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Section 1

Note:

- Attempt both passages.
- While answering the questions, frame the answers in your own language. Do not quote the text from the passage verbatim.

Passage I

"*Within traditional linguistic theory, furthermore, it was clearly understood that one of the qualities that all languages have in common is their "creative" aspect. Thus an essential property of language is that it provides the means for expressing indefinitely many thoughts and for reacting appropriately in an indefinite range of new situations. The grammar of a particular language, then, is to be supplemented by a universal grammar that accommodates the creative aspect of language use and expresses the deep-seated regularities which, being universal, are omitted from the grammar itself. Therefore it is quite proper for a grammar to discuss only exceptions and irregularities in any detail. It is only when supplemented by a universal grammar that the grammar of a language provides a full account of the speaker-hearer's competence.*" (Chomsky 1965)

Q1. What, according to Chomsky, is the "creative" aspect of language? Why is this property "common" for all languages? **[10]**

Q2. Give your opinion for or against Chomsky's conception of the creative aspect of language. Support it with proper linguistic examples. **[10]**

<u>Passage II</u>

"*Understanding human linguistic abilities is a central problem for cognitive science. A key theoretical question is whether the knowledge that underlies these abilities is probabilistic or categorical in nature (…)*

First we have the idea that the underlying grammatical competence generates a set of structures (or of sound–meaning pairs). On this approach, there is a binary distinction between those elements that are in the set of well-formed structures and those that are not. In addition to the grammar, there are performance components. These are processing devices of various types that may be probabilistic. In this framework, which many theoretical linguists assume, the formal device that encodes syntactic competence is categorical. It generates all and only the grammatical structures of a language. On the second alternative, grammatical competence does not define a set of well-formed structures with a binary membership condition. Instead, it generates a probability distribution over a set of structures that includes both well-formed and ill-formed elements (…)

The probabilistic approach can model certain aspects of linguistic behavior—disambiguation, perception, etc.—quite easily, but it does not naturally account for intuitions of grammaticality. By contrast, binary categorical models can easily express the distinction between grammatical and ungrammatical sentences, but they construe all sentences in each class as having the same status with respect to well-formedness. They do not, in themselves, allow for distinctions among more or less likely words or constructions, nor do they express different degrees of naturalness." (Lau, Clark and Lappin, 2016)

Q1. Discuss two ways to define linguistic competence according to Lau et al. (2016)? **[10]**

Q2. Do you think the probabilistic approach could be better in modeling linguistic behavior relating to disambiguation, perception, etc.? Provide support for your answer. **[10]**

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<u>Section 2</u>

Q1. In the literature, it is generally assumed that Hindi is a head-final language. Taking that as a point of departure, draw phrase structure trees for the following sentences. (glosses - fem: feminine, masc: masculine, 3p: 3rd person, sg: singular) **[10]**

a) *John roTii khaataa he*
John bread.fem. eat.masc.sg. be.3p.sg.present
'John eats bread'

b) *John jaantaa he ki mary roTii*
John know-masc.sg. be.3p.sg.present that Mary bread.fem.
khaatii he
eat.fem.sg. be.3p.sg.present
'John knows that Mary eats bread'

Q2. Turkish

Given that Turkish has eight vowels that are participate in vowel harmony, which results in allomorphy, answer the following questions.

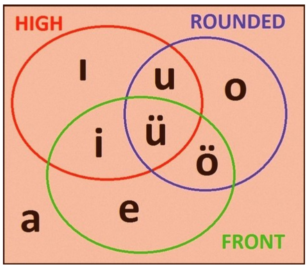

Table 1

Singular	**Plural**	**Gloss**
kanat	kanatlar	wing
sanat	sanatlar	art
etüd	etüdler	etude (a short musical composition)

Write a rule for plural allomorphy in Turkish based on the data in Table 1.

Also specify what features (+/- High, +/- Round, +/- Front) are part of the underlying representation of the vowel in the plural marker, and which feature is harmonized with the root. **[5]**

Table 2

Singular	Possessive	Gloss
kanat	kanadim	wing
sanat	sanatim	art
etüd	etüdüm	etude (a short musical composition)

Write a rule for voicing assimilation in Turkish to explain why /t/ alternates with /d/ in [kanat] but not in case of [sanat] and [etüd]. **[5]**

Q3. You have been given the task of finding all instances of the verb ‘eat’ in a large corpus. That is, you need to find all instances of the verb ‘eat’ in its various surface realizations. You start with the following regular expression: /eat/.

Provide examples of errors that might arise with this pattern. **[10]**

Suggest a solution to each of the errors you might find (optional)

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<u>Section 3</u>

Q1. Polish

Given

Vowels	**High**	**Round**
u	+	+
o	-	+
i	+	-

Table 3

Singular	**Plural**	**Gloss**
zwub	zwobi	crib
snop	snopi	sheaf
dzvon	dzvoni	bell
zur	zuri	soup
trup	trupi	corpse

Which of the following rules that describe the Polish data in Table 3? List what is wrong with each of the rejected rules. **[10]**

(a) [-High, +Round] → [+High] / ___________ [+cons, +voice]
(b) [+High, +Round] → [-High] / ___________ [+cons, -voice]
(c) [-High, +Round] → [+High] / ___________ C [+High]
(d) [+High, +Round] → [-High] / ___________ C [-High]
(e) [-High, +Round] → [+High] / ___________ [+cons, +voice, -nasal]#
(f) [+High, +Round] → [-High] / ___________ [+cons, +voice, -nasal]#

Q2. Given the following sentence, a human comprehender and a machine might encounter similar problems while parsing. Mention two challenges that will need to be overcome in order to arrive at the correct parse for this example.

The complex houses married and single students and their families.

[10]

Q3. Consider the following sentences from Punjabi and answer the following questions. (Glosses- erg: ergative, perf: perfective, sg: singular, fem: feminine, masc: masculine, hab: habitual) **[10]**

(a) *munde-ne rottii khaad̪d̪ii*
boy-erg bread.fem.sg. eat.fem.sg.perf.
'The boy had eaten bread'

(b) *mundaa rottii khããnd̪aa e*
boy.nom bread.fem.sg eat.masc.sg.hab. be. 3.sg pres.
'The boy eats bread'

i. Other than case differences, state two grammatical differences between sentences (a) and (b).

ii. State one factor that determines ergative case marking on the subject in this language.

Now look at more sentences from Punjabi.

(c) *mundaa/*munde-ne diggeyaa/gayaa*
boy.nom/*boy-erg fall.masc.sg perf /go.masc.sg perf.
'The boy had fallen down/had gone away'

(d) *kuɽii-ne nacceyaa/ khãŋgeyaa/ hasseyaa*
girl-erg dance/cough/laugh. masc.sg.perf.
'The girl had danced/ coughed/ laughed.'

iii. Based on sentences (c) and (d), what revisions would you like to bring to your answer in (ii)?

Now consider more sentences from the language.

(e) **maĩ-ne/tuu-ne rottii khaaddii sii*
I-erg/You -erg bread.fem.sg eat.fem.sg. perf be.3.sg.past.
'I/you had eaten bread'

(f) *maĩ/tuu rottii khaaddii sii*
I-nom/You-nom bread.f.sg eat.perf.f.sg be.3.sg.past
'I/you had eaten bread'

(g) *maĩ/tuu/o diggeyaa sãã/saĩ/sii*
I.nom/You.nom/He.nom fall.perf.m.sg be.sg.past.
I/you/he had fallen'

(h) *o-ne rottii khaaddii sii*
He-erg bread.fem.sg. eat.fem.sg.perf. be.3.sg.past
'He had eaten bread'

iv. Based on (e)-(h), what generalizations do your draw about ergative case assignment in Punjabi?

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<u>Section 4</u>

Q1. For the sentence pair (a,b) it was found that reading time at "*played*" in (a) was longer than (b). It was also found that the reading time at "*the baby*" was not different in the two sentences. Given this information, what properties can one posit for the sentence comprehension system?

(a) While John was dressing the baby played on the floor.
(b) While John was dressing himself the baby played on the floor.

[10]

Q2. Consider the following sentences from English.
[10]

(a) Who did what?
(b) Who went where?
(c) What happened to whom?
(d) What did you give to whom?

i. State a question formation rule in English, based on the questions given in (a)-(d).

Now consider more questions from English.

(e) *What did who do?
(f) *Where did who go?

ii. Append a condition on the question formation rule that you state in (i), based on questions (e)-(f).

Now consider the Bulgarian question below.

(g) Koj kogo običa ?
who whom loves
'Who loves whom?'

iii. State one parameter to distinguish question formation rules in English and Bulgarian.

Q3. Chicano Spanish

Vowel Hiatus is a phonological phenomenon where a sequence of two consecutive vowels, without any intervening consonant is avoided. Given the pronunciation of the following phrases from Chicano Spanish, write rules for or describe the strategies of hiatus resolution in this language.
[Word initial /h/ is always silent, Y=palatal glide, W=labial glide] **[10]**

Phrase	**Pronunciation**	**Gloss**
mi ultima	myultuma	my final
tu hijo	twixo	your son
tengo hipo	teŋgwipo	to have hiccups
me urge	myurxe	to urge
casa humilde	kasumilde	humble house
paga evita	pagevita	to avoid payment

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