UNIVERSITY OF SWAZILAND
DEPARTMENT OF AFRICAN LANGUAGES AND LITERATURE
FINAL EXAMINATION
DECEMBER 2016

TITLE OF PAPER: INTRODUCTION TO PHONETICS AND PHONOLOGY

COURSE NUMBER: ALL103

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS: 1. ANSWER FOUR (4) QUESTIONS IN ALL.

2. CHOOSE ONE QUESTION FROM EACH SECTION
   AND THE FOURTH QUESTION FROM EITHER
   SECTION A OR SECTION B OR SECTION C.

3. MARKS WILL BE DEDUCTED FOR UNTIDY WORK,
   WRONG SPELLING, AND UNGRAMMATICAL
   SENTENCES.

4. ALL EXAMPLES SHOULD BE GLOSSED.

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN
GRANTED BY THE INVIGILATOR.
SECTION A
PHONETICS

Answer Question one and any other question from this section

Question 1

(a) In a spectrogram, there are formants that are not linguistically significant. Name these formants and also what these formants indicate.

(3 marks)

(b) What distinguishes High pitch from Low pitch in a spectrogram?

(2 marks)

(c) Which formant frequencies indicate the following, in vowels?
   i) Height
   ii) Backness

(2 marks)

(d) What is the difference between front and back vowels in terms of formant frequencies?

(4 marks)

(e) What distinguishes the place of articulation in a spectrogram? Discuss, with illustrations from alveolar and velar consonants. (8 marks)

(f) Compare and contrast the formant structures of the following linguistic concepts:
   i) nasal and laterals;
   ii) stops and fricatives

(6 marks)

[25 Marks]

Question 2

a) Provide a three term label description of each of the sounds represented by the following IPA symbols:

[k']  [w]  [n]  [tʃ]  [b]  [ɹ]  [N]  (16 marks)

Example: [f]  Glottal activity  Manner  Place
Glottal activity  Voiceless  fricative  labiodental

b) Transcribe phonetically the siSwati items which follow:

i) jova  'inject'
ii) bala  'count'
iii) tsenga  'buy'
iv) phisa  'brew'
v) luhleko  'laughter'
vii) ngena  'enter'
vi) inyama  'meat'

(9 marks)
Question 3

(a) Distinguish between the following linguistic terms and concepts. Give for each argument an example from any language:

i) aspirated and unaspirated
ii) voiced and voiceless
iii) Velaric and glottalic airstream mechanism

(b) Using the phonetic alphabet, transcribe the following English words as you pronounce them in casual speech:

i) children
ii) accept
iii) coughs
iv) through
v) phonetics

SECTION B
PHONOLOGY

Choose two questions from this section

Question 4

(a) What distinctive feature, if any, do the following sets of sound segments share?

i) vowels and semi vowels;
ii) consonants and vowels;
iii) stops and affricates;
iv) bilabials and rounded vowels;
v) liquids and semi vowels

(b) Using phonetic cover terms formalize the rules expressed in ordinary English words:

i) A glide is inserted between vowels.
ii) A consonant is deleted when it occurs before another consonant.
iii) Voiceless stops are aspirated in word-initial position.
c) Using distinctive features, formalize the following rules:

i) A vowel is nasalized when it occurs before a nasal consonant
ii) A voiceless consonant becomes voiced between vowels
iii) Voiced stops are phonetically realized as voiceless segments in word-final position.
iv) A labial consonant is inserted between the vowel /o/ and /u/.

(12 marks)

d) Using examples from any language, distinguish between a minimal pair and a near minimal pair. (4 marks)

[25 Marks]

SECTION C
MISCELLANEOUS TOPICS
Choose one question from this section

Question 5

a) Using distinctive features, formalize the following phonological rules:

i) A voiced bilabial stop becomes a voiced bilabial fricative between vowels. (4 marks)

ii) The vowel /i/ is deleted before the vowel /e/. (3 marks)

iii) A vowel becomes nasalized before an alveolar nasal. (3 marks)

b) Consider the following data from Ganda, a language spoken in Uganda, and do the tasks which follow:

<table>
<thead>
<tr>
<th>Word</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kola</td>
<td>‘do’</td>
</tr>
<tr>
<td>wawaabira</td>
<td>‘accuse’</td>
</tr>
<tr>
<td>lwana</td>
<td>‘fight’</td>
</tr>
<tr>
<td>buulira</td>
<td>‘tell’</td>
</tr>
<tr>
<td>lya</td>
<td>‘eat’</td>
</tr>
<tr>
<td>omugole</td>
<td>‘bride’</td>
</tr>
<tr>
<td>effirimbi</td>
<td>‘whistle’</td>
</tr>
<tr>
<td>olulimi</td>
<td>‘tongue’</td>
</tr>
<tr>
<td>wulira</td>
<td>‘hear’</td>
</tr>
<tr>
<td>omuliro</td>
<td>‘fire’</td>
</tr>
<tr>
<td>eddwaliro</td>
<td>‘hospital’</td>
</tr>
<tr>
<td>jjukira</td>
<td>‘remember’</td>
</tr>
</tbody>
</table>


(i) Are the liquids [l] and [r] allophones of the same phoneme in Ganda or do they belong to separate phonemes? (1 mark)

(ii) If you believe they belong to separate phonemes, give evidence from the data. If you believe they are allophones of the same phoneme, list the conditioning environments. (5 marks)

b) With the aid of examples from any language, define each of the following linguistic terms and concepts.

(i) allomorph;
(ii) accidental gaps; (9 marks)
(iii) allophones in free variation

[25 Marks]

Question 6

a) Discuss five ways in which a language can enlarge its vocabulary. (15 marks)

b) Consider the data from Swahili provided below and do the tasks which follow:

fɛɛba ‘carry on the back’
ɔmɔm ‘blood’
mbovu ‘rotten’
gίza ‘darkness’
ngapi ‘how many’
ha5ari ‘news’
ndege ‘bird’
funga ‘fasten’
mbaja ‘bad’
wadogo ‘little ones’
ndizi ‘banana’

(iii) List all the pairs of allophones found in the data. (3 marks)

(iv) State the distribution of the allophones you listed in (i) above. (3 marks)

(v) Provide a phonemic transcription for the first four items presented in the data. (4 marks)

[25 marks]
Question 7

a) Indicate the phonetic symbols presented below:

-cons  -cons
+son    -son
-back   -cont
+high   -voiced
-round  +dorsal
-dul rel

b) Consider the data below:

sulat     'wri
sinulat   'was
susulat   'will
basag     'bre
binasag   'was
bumabasag 'is b
babasag   'will

Describe the process involved:

i) past tense;
ii) present tense progress;
iii) future tense.

d) The following words are all

cats
wishes
languages
pegs
taps
books
stitches
terms
pads

(i) List the allo-
(ii) Which allo-
(iii) State in wor
    presence of
    morpheme.