UNIVERSITY OF SWAZILAND
DEPARTMENT OF AFRICAN LANGUAGES AND LITERATURE FIRST SEMESTER EXAMINATION DECEMBER 2015

## 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 TWO QUESTIONS FROM EACH SECTION.
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 Ouestion 1 and any other question from this section

## Question 1

a) Discuss two advantages of describing speech sounds acoustically.
b) What distinguishes the following sets of sounds in terms of formant structure:
i) Vowels from nasals;
ii) Nasals from laterals;
iii) Voiced sounds from voiceless sounds;
iv) Fricatives from stops.
c) Discuss the following terms in relation to acoustic phonetics:
i) Sound waves;
ii) Frequency;
iii) Pitch.
[25 Marks]

## Question 2

Write the IPA symbols representing the following phonetic descriptions, and illustrate each of the sounds with a word in a language that contains the sound:
i) A voiced interdental fricative;
ii) A voiced glottal fricative;
iii) A voiceless labiodental fricative;
iv) A low back vowel;
v) A voiced bilabial fricative;
vi) A voiceless alveolar lateral fricative;
vii) A voiceless alveopalatal ejective affricate;
viii) A voiced coarticulated labiovelar stop;
ix) A voiced alveolar implosive;
x) A voiceless alveopalatal fricative;
xi) A voiced velar nasal;
xii) A voiced lateral liquid;
xiii) A voiced lateral fricative;
xiv) A voiced palatal approximant;
xv) A schwa;
xvi) A voiceless bilabial fricative;
xvii) A voiceless glottal stop;
xviii) A low central vowel;
xix) A high back lax vowel;
xx ) A voiceless velar fricative;
xxi) A voiced rhotic liquid;
xxii) A voiced alveolar affricate
xxiii) A mid tense front vowel;
xxiv) A low-high back diphthong;
xxv) A voiceless alveolar retroflex fricative.

## [25 marks]

## Question 3

Transcribe phonetically the siSwati items which follow:

| i) | bhala | 'write' |
| :--- | :--- | :--- |
| ii) | bala | 'count' |
| iii) | hishwa | 'choke' |
| iv) | hlola | 'peep' |
| v) | ngena | 'enter' |
| vi) | gijima | 'run' |
| vii) | guba | 'dig' |
| viii) | kona | 'take a corner' |
| ix) | kona | 'it' |
| x) | jova | 'inject' |
| xi) | citsa | 'pour' |
| xii) | kungcola | 'dirt' |
| xiii) | indvodza | 'man' |
| xiv) | dlala | 'play' |
| xv) | inja | 'dog' |
| xvi) | hlabelela | 'sing' |

## SECTION B

PHONOLOGY

## Answer Question 4 and any other question from this section

## Question 4

a) The following words are all regular plural forms of English nouns:
pots
wishes
languages

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pegs
taps
books
stitches
terms
pads
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(i) List the allomorphs of the plural morpheme in English.
(ii) Which allomorph makes the best underlying form? Why?
(iii) State in words the conditioning factors that account for the presence of the different allomorphs of the English plural morpheme.
b) Consider the following data from Ganda, a language spoken in Uganda, and do the tasks which follow:

| kola | 'do' |
| :--- | :--- |
| wawaabira | 'accuse' |
| lwana | 'fight' |
| buulira | 'tell' |
| lya | 'eat' |
| omugole | 'bride' |
| effirimbi | 'whistle' |
| olulimi | 'tongue' |
| wulira | 'hear' |
| omuliro | 'fire' |
| eddwaliro | 'hospital' |
| jjukira | 'remember' |

(i) Are the liquids [1] and [r] allophones of the same phoneme in Ganda or do they belong to separate phonemes?
(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.
(iii) Give a phonemic representation for the first six (6) words.

## Question 5

a) Distinguish between each of the following linguistic terms and concepts. Give for each argument an example from any language.
(i) Allophones in free variation and allophones in complementary distribution;
(ii) Minimal pair and near minimal pair;
(iii) Accidental gaps and systematic gaps.
b) Name the single feature that distinguishes the following pairs of sounds:
i) $[\mathrm{i}]:[\mathrm{r}]$
ii) $[\mathrm{k}]:[\mathrm{x}]$
iii) $[\mathrm{f}]:[\mathrm{v}]$
iv) $[\mathrm{i}]:[\mathrm{e}]$
v) $[\mathrm{f}]:[\mathrm{h}]$
vi) $[\mathrm{z}]$ : [d]
vii) $\left[\mathrm{k}^{\mathrm{h}}\right]:[\mathrm{k}]$
c) 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.

## Question 6

a) Using distinctive features, formalize the following phonological rules:
i) Non-labial consonants are labialized when they occur before the vowel $/ \mathrm{u} /$ and $/ \mathrm{o} /$.
ii) A voiceless consonant becomes voiced intervocalically.
[15]
iii) A voiced bilabial stop becomes a voiced bilabial fricative between vowels.
iv) The vowel $/ \mathrm{i} /$ is deleted before the vowel /e/.
v) A voiceless alveolar stop becomes voiced word-finally.
b) In each of the groups (i-v) below there is one odd member, the rest belonging to a natural class. Identify the odd one out and say which feature is common to the remainder.
i. $[\mathrm{d}, \mathrm{z}, \mathrm{z}, \mathrm{f}, \mathrm{\gamma}]$
ii. $[x, \gamma, \eta, k, p]$
iii. $[\mathrm{n}, \mathrm{l}, \mathrm{r}, \mathrm{d}, \mathrm{n}]$
iv. $[v, n, m, \nu, \beta]$
v. $[s, t, d, t s, n]$

