

Fourth Hong Kong Linguistics Olympiad

February 20, 2022

Solutions

Problem 1.

1. Verb structure:

- i.
- Tense
- :
- k-**
- = Past,
- n-**
- = Future

	sg.M	sg.F	pl.M	pl.F
ii. <u>Subject</u> :	1	-ana-	-en-*	-emi-**
	2	-ama-	-on-*	
	3	-a-	-o-	-e- -ere-

- iii.
- Root
- : If the root ends in a diphthong (e.g.
- ropoe**
-), an epenthetic consonant (EC) is added, which agrees with the subject as follows: 1sg:
- n-**
- 1pl:
- m-**
- 3sg/pl:
- r-**

- iv.
- Object
- :

1pl: **-mi-**** 2pl.M: **-pu-**** 3sg.M: **-ka-** 3sg.F: **-u-**** 3pl.M: **-i-**** 3pl.F: **-re-**

2. Phonological changes:

- i. **Nasal assimilation.** For the morphemes ending in **n** (*), the final **n** will assimilate the place of articulation from the following consonant (i.e. **n** > **ng** / **_ k** and **n** > **m** / **_ p**).
- ii. **Vowel reduction.** For morphemes starting or ending in **i** or **u** (**), that vowel will get reduced to the corresponding glide (**j** and **w**), if there is another vowel next to it (i.e. **i** > **y** / **{V _ or _ V}** and **u** > **w** / **{V _ or _ V}**)

(a)

1. *They(M) fought her.*
2. *I(F) will open her.*
3. *He deceived them(F).*
4. *You(SG, F) will be big.*

(b)

5. **noytiroy**
6. **kemirisimiw**
7. **nongkoni**
8. **kowra**

(c)

- We will fold.* (root = **pori**)
We will fold them(M). (root = **por**)
They(M) will fold. (root = **mipori**)
They(M) will fold. (root = **mipoi**)
They(M) will fold them(M). (root = **mipor**)

Problem 2.

1. Music notation:

2. Word order: **SVO; Det - N - A**

3. Noun (N) declension:

It affects the last note of **Det** (if present); else the last note of **N**.

4. Adjective (A):

very A N = N F-B A; the most A N = N A F-B; A = to be A

5. Verbs:

Tense marked before the verb (C-C = past, E-E = future etc.). Present is unmarked.
Negation (C) marked before the tense marker.

6. Lexicon:

Antonyms of adjectives and verbs are formed by reversing the order of the notes.

All human nouns (kinship) start with (D-B); all animals start with F-D.

(a)

11. *Their father will cry.*
12. *The very happy grandfathers get off the horses(M).*
13. *Mares are happy because the daughter did not hate them.*

- (b) 14-a, 15-g, 16-b, 17-f, 18-d, 19-h, 20-e, 21-c

(c)

Problem 3.

1. Regional variations in certain glyphs due to pronunciation differences:

Arabic script	N. Levantine	Sudanese	Tunisian	Moroccan
ق	2	g	8	8
ظ	dh	dh	6'	dh
ض	9'	9'	dh	9'
ث	t	t	th	t
ذ	z	d	th	d
ج	j	g	j	j
ص	9	s	9	9

2. Regional variation in certain glyphs due to colonial language:

Arabic script	English-influenced (Sudanese)	French-influenced (Levantine, Tunisian, Moroccan)
ش	\$	ch
g	oo	ou
ا	a	a, é (Levantine)

3. Vowel shifts:

- a) Levantine: **a** > **e** / **_ #** b) Tunisian: **a** > **∅** / **_ CV**
 c) Moroccan: **a** > **∅** / **_ C**; **aa** > **a**; **ee** > **i**

4. The apostrophes after numbers indicate an i'jam (a dot) that separates a glyph from another: ع (3) – ع' (3'); ط (6) – ط' (6'); ح (7) – ح' (7'); ص (9) – ص' (9')

(a)

Arabic script	N. Levantine	Sudanese	Tunisian	Moroccan	Translation
إذا	iza		eetha	ida	<i>if</i>
دودة		dooda	douda		<i>worm</i>
جبل	jabal	gabal	jbal		<i>mountain</i>
نفخ		nafa7'	nfa7'		<i>to blow</i>
طريق		6areeg		6ri8	<i>road</i>
ضرب		9'arab	dhrab	9'rb	<i>to hit</i>
ريح		ree7	ree7	ri7	<i>wind</i>
قصير			89eer	89ir	<i>short</i>
ثقيل		tageel	th8eel	t8il	<i>heavy</i>
عاش	3aach	3aa\$	3aach		<i>to live</i>

Problem 4.

1. Basic numerals:

1	–	d’oi	6	–	mi zo d’oi (lit. $5 + 1$)
2	–	zio	7	–	kal m̐bakad’ɛ (lit. $8 - 1$)
3	–	muta	8	–	m̐bakad’ɛ
4	–	so	9	–	kal b’u (lit. $10 - 1$)
5	–	mi	10	–	b’u

2. Complex numbers:

$10 + X$	=	b’u zo X	–	$X \in \{1, 9\}$
$20X + Y$	=	unda X zo Y	–	$X \in \{1, 4\}, Y \in \{1, 19\}$
$100X + Y$	=	m̐bambo X zo Y	–	$X \in \{1, 9\}, Y \in \{1, 99\}$

(a)

a-18, b-9, c-36, d-27, e-72, f-63, g-90, h-99, i-81, j-54, k-45

(b)

- (1) **$8 \times 25 = 200$**
(2) **$81 + 79 = 160$**

(c)

- 16 – **b’u zo mi zo d’oi**
20 – **unda d’oi**
39 – **unda d’oi zo b’u zo kal b’u**
46 – **unda zio zo mi zo d’oi**
100 – **m̐bambo d’oi**
363 – **m̐bambo muta zo unda muta zo muta**
477 – **m̐bambo so zo unda muta zo b’u zo kal m̐bakad’ɛ**
800 – **m̐bambo m̐bakad’ɛ**