

en(B)

Twenty-first International Linguistics Olympiad

Brasília (Brazil), 23–31 July 2024

Individual Contest Solutions

Problem 1. Structure of the verb form:

1. subject (**t-** 1st person sg, **mət-** 1st person du/1st person pl, **∅-** 2nd person sg, **ne-** 3rd person du=3rd person pl)
2. **ə** materialises here if and only if needed to avoid a cluster of two consonants word-initially or word-finally, or a cluster of three consonants in any position.
3. tense (**ku-** present, **je-** future, **∅-** past)
4. **ine-**: direct object = 1st person sg (subject = 2nd person du/2nd person pl)
5. verb root
6. **-la**: subject/direct object = 1st person pl/2nd person pl
7. tense (**-ŋ** present/future, **-∅** past)
8. **ə** materialises here if and only if needed to avoid a cluster of two consonants word-initially or word-finally, or a cluster of three consonants in any position.
9. **-tək**: subject = 2nd person du/2nd person pl (direct object = 1st person sg);
direct object (-**tək** 2nd person du/2nd person pl, **-n** 3rd person sg, **-net** 3rd person du, **-new** 3rd person pl)

Sound changes:

1. the final vowel of a prefix is lost before another vowel;
2. **t+j > cc, t+l > ll, t+n > nn, t+ŋ > ŋŋ;**
3. if **a** is present, all **e/i/u** in the word become **a/e/o**, respectively.

(a)	19. kullenjən	<i>you_(sg) lead him</i>
	20. jinejguṇtək	<i>you_(du) will bite me</i>
	21. tekminnew	<i>I caught them_(pl)</i>
	22. təjohallanjək	<i>I will wait for you_(pl)</i>
	23. mətkonŋevlaŋən	<i>we_(pl) send him</i>
(b)	24. <i>you_(sg) will see them_(du)</i>	jelhuŋnet
	25. <i>we_(pl) bit him</i>	mətəjgolan
	26. <i>you_(pl) catch me</i>	kenakmellaŋtək
	27. <i>they send you_(du)</i>	nekunŋivŋətək
	28. <i>you_(du) led me</i>	inelletək

Problem 2. possessed_a-sfx_a-POSS_b possessor_b-sfx_b

<p>m</p> <ul style="list-style-type: none"> • animals: <i>lion, leopard, flamingo</i> • objects, body parts: long/thin • <table border="1" style="margin-top: 10px; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>sg</td> <td>pl</td> </tr> <tr> <td>sfx</td> <td>-∅</td> <td>-bii *</td> </tr> <tr> <td>POSS</td> <td>-ma</td> <td>-itcha *</td> </tr> </table>		sg	pl	sfx	-∅	-bii *	POSS	-ma	-itcha *	<p>f</p> <ul style="list-style-type: none"> • animals: <i>zebra, impala, elephant, baboon, giraffe</i> • objects, body parts: short/thick • <table border="1" style="margin-top: 10px; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>sg</td> <td>pl</td> </tr> <tr> <td>sfx</td> <td>-ko</td> <td>-bee</td> </tr> <tr> <td>POSS</td> <td>-sa</td> <td>-eta</td> </tr> </table>		sg	pl	sfx	-ko	-bee	POSS	-sa	-eta
	sg	pl																	
sfx	-∅	-bii *																	
POSS	-ma	-itcha *																	
	sg	pl																	
sfx	-ko	-bee																	
POSS	-sa	-eta																	

* e, o > i, u before masculine plural endings
 (blocked by an intervening a, e.g., zzokwana-bii)
 -bii-itcha > -biitcha

- (a) 19. **wiriko** – D. *short, thick root*
- 20. **roobee** – C. *horns (e.g., of dik-diks)*
- 21. **mu'a** – B. *thin twig*
- 22. **zzahubii** – A. *tails (e.g., of leopards)*
- (b) 23. **gariko** – car (= *short lorry*)
- 24. **makubii** – *tall cooking pots*
- 25. **hazzakeko** – *female thief*
- 26. **dongobee** – *zebras*
- 27. **zzahoko** – (*short, thick*) tail
- 28. **nqibii** – *leopards*
- (c) 29. *the flamingo's leg* – **uphukwama gogogogo**
- 30. *the zebra's V. pseudolablab tuber* – **shumukosa dongoko**
- 31. *the male impalas' horns* – **ruubiitcha puphubii**
- 32. *the female strangers' thick stick* – **mu'akoeta uhuyitibee**
- 33. *the boys' tall cooking pot* – **makuitcha eratibii**
- 34. *the impala's long, thin roots* – **wiribiisa pophoko**

Problem 3.

- A B-ane X $\begin{cases} \text{rä} & - \text{ if A is a woman} \\ \text{yé} & - \text{ if A is a man} \end{cases}$

- A = B's relative
- X = kinship term

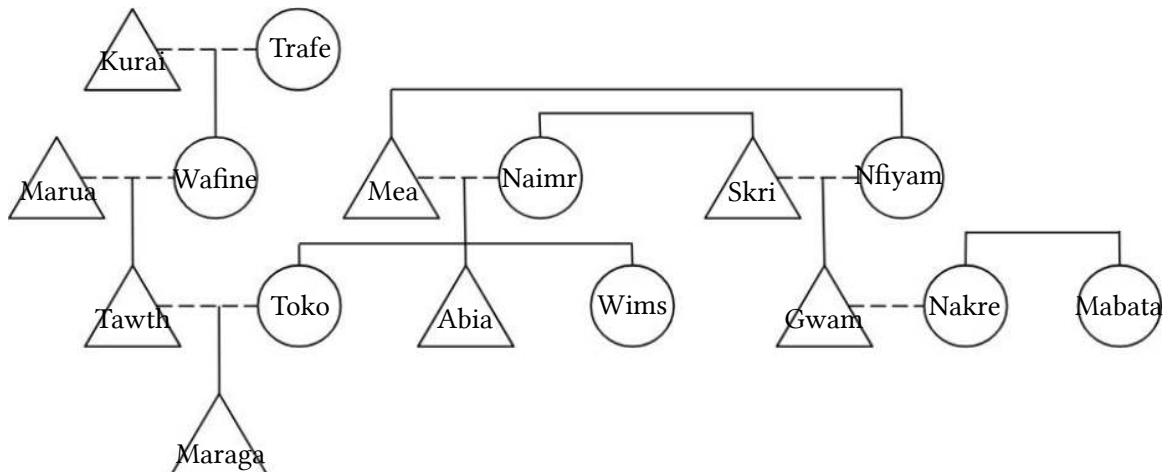
- **ŋafe** father
- ŋame** mother
- nge** child
- zath** grandfather, grandson
- zath ŋare** grandmother, granddaughter
- nane** elder sibling
- ngth** younger sibling
- enat** son-in-law
- ŋäwi** uncle (mother's brother)

- | | |
|---|----------|
| B | brother |
| D | daughter |
| F | father |
| H | husband |
| M | mother |
| S | son |
| W | wife |
| Z | sister |

terms after sister exchange:

- | | |
|---------------|------------------------------|
| bäiŋaf | MB = FZH, ZS = WBS, BS = HZS |
| bäiŋam | FZ = MBW, ZD = WBD, BD = HZD |
| yamit | bäiŋaf and bäiŋam's child |
| yumad | yamit's wife |

(a)



(b) 1. bäiŋam rä

2. enat yé

3. zath ŋare rä

4. nge yé

5. Nakreane

6. rä

(c) Skri Abiaane bäiŋaf yé.

Problem 4.

- (a) 1. ç̄um 'aa' (foot – receptacle): C. *flip-flops*
2. dâw ç̄um (person – foot): I. *foot*
3. dâw nõr (person – mouth): B. *mouth*
4. dâw nõr keet (person – mouth – leaf/tongue): H. *tongue*
5. dâw tõog (person – daughter): F. *daughter*
6. dâw sôb pis ((person – hand – small) – small): D. *little finger*
7. dâw tõoj (person – nose): J. *nose*
8. dôo' piis (to make – small): E. *to decrease (something)*
9. sôb dak (hand – to put): A. *ring*
10. suk 'aa' (flour – receptacle): G. *can of flour*
11. be keet (tree – leaf/tongue): M. *leaf*
12. be tûm (tree – seed/eye): Q. *seed*
13. yak yaa' (manioc – to roast): T. *macaxeira*
14. yak nâax (manioc – water): S. *tucupi*
15. nâx pôog (water – big): P. *main river*
16. nâx taax (water – tapir): L. *capybara*
17. taax 'uuy (tapir – domesticated): K. *domesticated tapir*
18. tûm tâag (seed/eye – to know): N. *glasses (spectacles)*
19. yon 'uuy (anteater – domesticated): R. *domesticated anteater*
20. yon tõoj (anteater – nose): O. *revolver*
- (b) 21. dâw sôb piis (person – (hand – small)): *finger*
22. dâw sôob pis ((person – hand) – small): *little hand*
23. dâw ç̄um piis (person – (foot – small)): *toe*
- (c) 24. *brook, stream* – nâx piis (water – small)
25. *little tapir* – taax pis (tapir) – small
26. *eye* – dâw tûm (person – seed/eye)
27. *granddaughter* – dâw tõg tõog (person – (daughter – daughter))

Problem 5. Word order:

- **S V** (**S** = subject of a intransitive verb; **V** = verb)
- **A-*lu* V P** (**A** = subject of a transitive verb; **P** = direct object)

Noun:

	noun classes:	P = S	A
	women	rra-	rru-
(♀)	men	nya-	nyu-
(♂)	men = animals	∅-	ki-
(♀)	animals	∅-	ji-
	edible things	ma-	
	pl	li-	linji-

Verb:

- tense (j- present continuous, k- future/past)
- (direct object)
- subject

	noun classes:	P	S	A
	women	arr-	anda-	anda-
(♀)	men	any-	iwa-	ilu-
(♂)	men = animals	∅-	a-	ilu-
(♀)	animals	∅-	i-	inju-
	edible things	∅-	∅-	∅-
	pl	al-	alu-	alu-

- verb root
- tense (-∅ past, -nji present continuous, -la future)

- (a) 15. **mirningiya ka-wulumala** – *The man will run.*
 16. **nyu-munangalu kalilu-wudurruma li-wakuku** – *The white man fed the dogs.*
 17. **linji-ardulu jalu-wubanji ma-burlurlu** – *The boys/girls (children) are baking the bread.*
 18. **rru-nhanawalu janda-athamanji ardu** – *The woman is chasing the boy.*
- (b) 15. ♂
 16. ♀
 17. ?
 18. ♂
- (c) 19. *The dog chased the girl.*
 ♀ ji-wakukulu karrinju-athama rra-ardu
 ♂ ki-wakukulu karrilu-athama rra-ardu
 20. *The pregnant woman is feeding the old women.*
 ♀=♂ rru-walkurulu jalanda-wudurrumanji li-bardibardi
 21. *The old man healed the Yanyuwa man.*
 ♀ nyu-malbulu kanyilu-yabima nya-yanyuwa
 ♂ ki-malbulu kilu-yabima yanyuwa
 22. *The kangaroo will return.*
 ♀ wunala ki-wanila
 ♂ wunala ka-wanila