

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, Ø- 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, Ø- 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, -Ø 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. | kulleŋən | you _(sg) lead him |
| | 20. | jinejgun̄tək | you _(du) will bite me |
| | 21. | tekminnew | I caught them _(pl) |
| | 22. | təjohallaŋtək | I will wait for you _(pl) |
| | 23. | mətkonŋevlaŋən | we _(pl) send him |
| (b) | 24. | you _(sg) will see them _(du) | jelhuŋnet |
| | 25. | we _(pl) bit him | mətəjgolan |
| | 26. | you _(pl) catch me | kenakmellaŋtək |
| | 27. | they send you _(du) | nekunŋivŋətək |
| | 28. | you _(du) led me | inelletək |

Problem 2. possessed_a-sfx_a-POSS_b possessor_b-sfx_b

m

- animals: *lion, leopard, flamingo*
- objects, body parts: long/thin
- | | | |
|------|-----|----------|
| | sg | pl |
| sfx | -∅ | -bii * |
| POSS | -ma | -itcha * |

f

- animals: *zebra, impala, elephant, baboon, giraffe*
- objects, body parts: short/thick
- | | | |
|------|-----|------|
| | 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

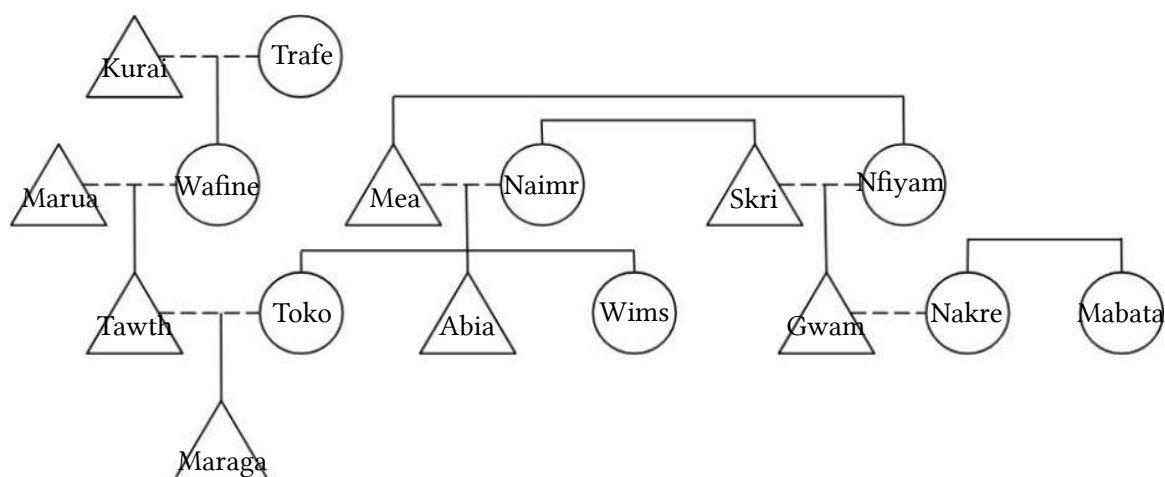
- **ḡafe** father
- **ḡame** mother
- **nge** child
- **zath** grandfather, grandson
- **zath ḡare** grandmother, granddaughter
- **nane** elder sibling
- **ngth** younger sibling
- **enat** son-in-law
- **ḡawi** uncle (mother's brother)

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

terms after sister exchange:

- bäiḡaf** MB = FZH, ZS = WBS, BS = HZS
- bäiḡam** FZ = MBW, ZD = WBD, BD = HZD
- yamit** **bäiḡaf** and **bäiḡam**'s child
- yumad** **yamit**'s wife

(a)



- (b)
1. **bäiḡam rä**
 2. **enat yé**
 3. **zath ḡare rä**
 4. **nge yé**
 5. **Nakreane**
 6. **rä**

(c) Skri Abiaane bäiḡaf yé.

Problem 4.

- (a)
1. **çum** 'aa' (foot – receptacle): C. *flip-flops*
 2. **dâw çuum** (person – foot): I. *foot*
 3. **dâw nôr** (person – mouth): B. *mouth*
 4. **dâw nôr keet** (person – mouth – leaf/tongue): H. *tongue*
 5. **dâw tôog** (person – daughter): F. *daughter*
 6. **dâw sôb pis piis** ((person – hand – small) – small): D. *little finger*
 7. **dâw tôoj** (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 tum** (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. **tum tâag** (seed/eye – to know): N. *glasses (spectacles)*
 19. **yon 'uuy** (anteater – domesticated): R. *domesticated anteater*
 20. **yon tôoj** (anteater – nose): O. *revolver*
- (b)
21. **dâw sôb piis** (person – (hand – small)): *finger*
 22. **dâw sôob pis** ((person – hand) – small): *little hand*
 23. **dâw çum piis** (person – (foot – small)): *toe*
- (c)
24. *brook, stream* – **nâx piis** (water – small)
 25. *little tapir* – **taax pis** (tapir) – small
 26. *eye* – **dâw tum** (person – seed/eye)
 27. *granddaughter* – **dâw tôg tôog** (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