

## 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,  $\emptyset$ - 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,  $\emptyset$ - 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,  $\emptyset$  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. | <b>kulleŋən</b>       | <i>you<sub>(sg)</sub> lead him</i>        |
| 20. | <b>jinejguntək</b>    | <i>you<sub>(du)</sub> will bite me</i>    |
| 21. | <b>tekminnew</b>      | <i>I caught them<sub>(pl)</sub></i>       |
| 22. | <b>təjohalləntək</b>  | <i>I will wait for you<sub>(pl)</sub></i> |
| 23. | <b>mətkonŋevləŋən</b> | <i>we<sub>(pl)</sub> send him</i>         |
- (b)
- |     |  |                       |
|-----|--|-----------------------|
| 24. | <i>you<sub>(sg)</sub> will see them<sub>(du)</sub></i> | <b>jelhuŋnet</b>      |
| 25. | <i>we<sub>(pl)</sub> bit him</i>                       | <b>mətəjgolan</b>     |
| 26. | <i>you<sub>(pl)</sub> catch me</i>                     | <b>kenakmelləntək</b> |
| 27. | <i>they send you<sub>(du)</sub></i>                    | <b>nekunŋivŋətək</b>  |
| 28. | <i>you<sub>(du)</sub> led me</i>                       | <b>inelletək</b>      |

Problem 2. possessed<sub>a</sub>-sfx<sub>a</sub>-POSS<sub>b</sub> possessor<sub>b</sub>-sfx<sub>b</sub>

m			f		
<ul style="list-style-type: none"> <li>animals: <i>lion, leopard, flamingo</i></li> <li>objects, body parts: long/thin</li> </ul>			<ul style="list-style-type: none"> <li>animals: <i>zebra, impala, elephant, baboon, giraffe</i></li> <li>objects, body parts: short/thick</li> </ul>		
	sg	pl		sg	pl
sfx	-∅	-bii *	sfx	-ko	-bee
POSS	-ma	-itcha *	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  $\begin{cases} \text{rä} & \text{— if A is a woman} \\ \text{yé} & \text{— if A is a man} \end{cases}$

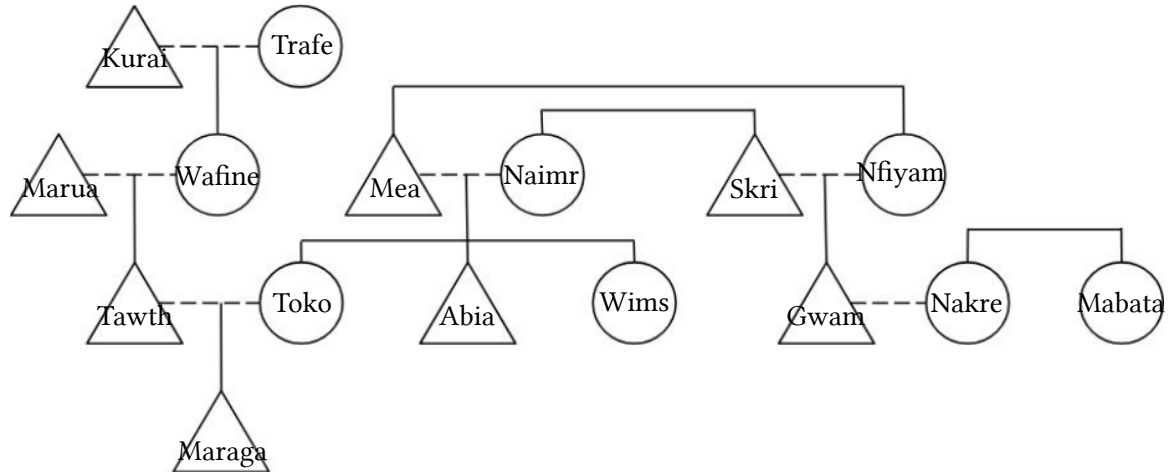
- A = B's relative
- X = kinship term

• <b>ɲafe</b>	father	B	brother
<b>ɲame</b>	mother	D	daughter
<b>nge</b>	child	F	father
<b>zath</b>	grandfather, grandson	H	husband
<b>zath ɲare</b>	grandmother, granddaughter	M	mother
<b>nane</b>	elder sibling	S	son
<b>ngth</b>	younger sibling	W	wife
<b>enat</b>	son-in-law	Z	sister
<b>ɲäwi</b>	uncle (mother's brother)		

terms after sister exchange:

<b>bäiɲaf</b>	MB = FZH, ZS = WBS, BS = HZS
<b>bäiɲam</b>	FZ = MBW, ZD = WBD, BD = HZD
<b>yamit</b>	<b>bäiɲaf</b> and <b>bäiɲam</b> 's child
<b>yumad</b>	<b>yamit</b> 's wife

(a)



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

(c) **Skri Abiaane bäiɲaf 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**