

# Tenth Taiwan Olympiad in Linguistics

2 March 2025

## Solutions

### Problem 1 Hausa

The word order is SVO, in which there is a marker before the verb that expresses the grammatical category of the subject (PNG-TAM marker).

The markers along with the pronouns (objective) are as below:

person	perfect	neg. perfect	future	neg. future	progressive	pronoun (objective)
		ba-...ba	za...	ba za...ba		
I(sg.)	na	ni			ina	ni
II(sg.m)	ka	ka			kana	ka
II(sg.f)	kin	ki			kina	ki
III(sg.m)	ya	ya			yana/fina	fi
III(sg.f)	ta	ta			tana	ta
I(pl.)	mun	mu			muna	mu
II(pl.)	kun	ku			kuna	ku
III(pl.)	sun	su			sun	su
IV(indf.)	an	a			ana	

Shaded cases are absent in this problem.

Plurals are very complex. In this problem, there are no rules that need to be deduced.

Possessive link for noun-linked compound: **-n** for masculine and plural, **-r** for feminine (absent in this problem).

The phrase **bani/za ni** are contracted to **ban/zan**. The phrase **baya/za ya** are contracted to **bai/zai**.

### Answer

(a)

- |  |                                      |
|--|--------------------------------------|
| 1. <b>Ya dafa.</b>                     | C. <i>He cooked.</i>                 |
| 2. <b>Ina dafa.</b>                    | K. <i>I am cooking.</i>              |
| 3. <b>Sun dafa abinci.</b>             | F. <i>They cooked food.</i>          |
| 4. <b>Jakai suna kai ni.</b>           | E. <i>Donkeys are carrying me.</i>   |
| 5. <b>Karnuka za su ci naman jaki.</b> | L. <i>Dogs will eat donkey meat.</i> |

- |                                    |   |
|------------------------------------|---|
| 6. <b>Na taɓa motoci.</b>          | H. <i>I touched cars.</i>                 |
| 7. <b>Ba zan kama jaki ba.</b>     | G. <i>I will not catch a donkey.</i>      |
| 8. <b>Kun ga kujera.</b>           | D. <i>You(pl.) saw a chair.</i>           |
| 9. <b>Bamu kai kujeru ba.</b>      | B. <i>We did not carry chairs.</i>        |
| 10. <b>Ya taɓa.</b>                | A. <i>He touched.</i>                     |
| 11. <b>Zomo ya tafi gida.</b>      | J. <i>A hare went to a house.</i>         |
| 12. <b>Kana taɓa abincin kare.</b> | I. <i>You(sg.) are touching dog food.</i> |

(8 pt) [1 pt is deducted for each incorrect answer.]

(b)

13. *You(sg.) saw houses.*
14. *A car did not go.*
15. *A dog is catching you(pl.).*
16. *Hares will not touch meat.*

(4 pt) [1 pt each. No point for incorrect answer relating to the subject marker (PNG-TAM). 0.5 pt is deducted for each other incorrect answers.]

(c)

17. **Baka ga ni ba.**
18. **Kuna dafa naman zomo.**
19. **Mun ci zomaye.**
20. **Ba za ku taɓa gidan kare ba.**

(6 pt) [1.5 pt each. 1 pt is deducted for incorrect subject marker. 0.5 pt is deducted for each other incorrect answers.]

(d)

**zan** (*I will*) and **bai** (*he did not*) are contracted words.

(2 pt) [1 pt each. No partial credits.]

## Reference

Caron, Bernard. (2015). *Hausa Grammatical Sketch*. HAL SHS.

Migeod, Frederick William Hugh. (1914). *A Grammar of the Hausa Language*. London: Kegan Paul, Trench, Trübner & Co.

## Problem 2 Oromo

Ge'ez script: abugida; long consonants are written in two letters. An overdot indicates long vowel except for **aa**. The zero-onset/glottal stop is considered as a consonant.

Sapalo script: abugida; long consonants are represented by the short ones with a zigzagged line. Long and short vowels are regarded as having no correspondence and do not share symbols. The zero-onset/glottal stop is considered as a consonant.

Latin script: alphabet.

Morphology: [stem]-[emphasized plural]-[case]

Emphasized plural (*many*): the final vowel is truncated, and the suffix **-oota** (when the previous syllable contains a short vowel) or **-ota** (when the previous syllable contains a long vowel) is added.

Cases markers:

Word final	locative <i>in</i>	ablative <i>from</i>	genitive
Ending up with a short vowel -V#	<b>-tti</b>	V>V:	V>V:
Ending up with a long vowel -V:#		<b>-dhaa</b>	unchanged
Ending up with a consonant -C#	<b>-itti</b>	<b>-ii</b>	<b>-ii</b>

### Answer

(a)

- ኪታቦተትቲ
- ሰላተ
- ፔብሊኒ
- Ahmadii
- biyyootaa
- ዲጎ
- ፍፔ
- ኦብቦሌስሰ
- ጆጅፎጆ

(9 pt) [0.5 pt each for question 2, 4, and 5, 1.5pt each for question 3, 8, and 9, 1 pt each for the rest.]

(b)

- from the Blue Nile, of the Blue Nile*
- many alcohols*

12. *many prayers*

13. *country*

14. *in Harar*

(4 pt) [1 pt each for question 10, 13, and 14. 0.5 pt each for question 11 and 12.]

(c)

15. **affanitti**

16. በረከትቶተ

17. አሰልላፃ

18. ቋጅታ

19. ቋጅታቋጅ

20. ቋጅ

(7 pt) [1.5 pt each for question 19 and 20, 1 pt each for the rest.]

### Marking Criteria

For question 1~3, 6~9, and 16~19, 0.5 pt is deducted for each consonant mistake or inferable vowel mark mistake that does not affect the meaning, 1 pt is deducted for each consonant or vowel mistake. No partial point except for the above mentioned.

For question 10, 13, and 14, 0.5 pt is given to partial correct answers.

### Reference

- Duresso, Melkamu. (2014). *Wörterbuch Oromo-Deutsch / Deutsch-Oromo*. Hamburg: Helmut Buske Verlag GmbH.
- Hayward, Richard J.; Hassan, Mohammed. (1981). *The Oromo Orthography of Shaykh Bakri Sapalō*. London: Bulletin of the School of Oriental and African Studies.
- Klüsener, Rainer; Goshu, Debela. (2008). *Oromo für Äthiopien und Nordkenia—Wort für Wort*. Bielefeld: Reise Know-How Verlag Peter Rump GmbH.
- Mawadza, Aquilina; Ayanso, Amanuel Alemayehu. (2017). *Oromo-English/English-Oromo Dictionary & Phrasebook*. New York City: Hippocrene Books.
- Wakweya, Gobena. (2017). *Inflectional morphology in Mecha Oromo*. Jimma: College of Social Sciences and Humanities, Department of English Language and Literature

### Problem 3 Khwarshi

Sentence structure: [instrumental/causal] + [ergative] + [lative] + [absolutive] + [verb]

The alignment of verb and arguments are as below:

verb type		ergative	lative	absolutive
Experimental two-place verb (intransitive)	<i>meet -us-</i> , <i>know -iq'-</i> , <i>understand bulh-</i>		subject	object
Two-place verb (transitive)	<i>eat -ats'-</i> , <i>chop -it'x-</i>	subject		object
Three-place verb (ditransitive)	<i>buy -ez-</i> , <i>send -eft'-</i>	subject	recipient	object

The case markers of noun are as below:

absolutive	ergative*	lative	instrumental	causal	genitive for abs.	genitive for other cases
∅	end in V: ∅ end in C: -i	-l	-z	-tleru	-s	last V is a: -la else: -lo

Some nouns distinguish the base stem (for absolutive) from the oblique stem (for other cases), e.g., *woman* (base stem **Ɂine**, oblique stem **Ɂina**), *pan* (base stem **Ɂog**, oblique stem **Ɂojgo**), etc.<sup>†</sup>

If suffixes cause a consonant cluster, a vowel applied vowel harmony is inserted.

The possessor, preceding its possessum.

There are five genders for nouns. The gender of absolutive determines the prefix of verb.

gender	content	words in this problem	prefix of verb
1	male human	<i>man, father, boy/son, khan</i>	∅
2	female human	<i>woman, mother, girl/daughter, which</i>	j-
3	animals, body parts, etc.	<i>cow, wolf, horse, donkey, fly, fox, she-goat, child</i>	b-
4	body parts, tools, verbal noun, etc.	<i>spade, grass, saw, knife, water, pan</i>	l-
5	young animals, etc.	<i>chick</i>	j-

Gender 2 and 5 varies in other inflections, which are omitted here.

There are other words that belong to both Gender 1 and 2, such as *sibling*, *cheater*, and *doctor*, depending on the context referent.

Tense of verb:

general tense	past witnessed tense	past unwitnessed tense
<b>uC &gt; uwōC</b> <b>[a/e/o]C &gt; [ā/ē/ō]C</b> <b>[i/ī]C &gt; [i/ī]jōC</b> <b>VC<sub>1</sub>C<sub>2</sub> &gt; VC<sub>1</sub>ōC<sub>2</sub></b>	<b>-i</b>	<b>-Vn</b> Vowel harmony rules apply.

Vowel harmony:

final vowel	inserted vowel
<b>a, e, o<sup>†</sup>, i</b>	<b>i</b>
<b>u, o<sup>‡</sup></b>	<b>u</b>
<b>i</b>	<b>i</b>

\*For nouns without base/oblique stem distinguishment, **-ji** is added to those ends in vowels (absent here), while **-i** is added to those ends in consonants. For nouns with base/oblique stem distinguishment, nothing( $\emptyset$ ) is added to those ends in vowels, while **-i** is added to those ends in consonants.

<sup>†</sup>There are cases that base and oblique stems differ in stress only. (Absent in this problem, where stress is omitted).

<sup>‡</sup>For nouns/verbs containing **o** as the last vowel, **i/u** is inserted respectively. The latter is absent in this problem.

### Answer

(a)

*understand* **bulh-**; the absolutive (object) does not affect prefixes.

(2 pt) [1 pt for related but incomplete explanation.]

(b)

13. D. *It is said that because of the cheater, the child's wolf met the pan.*

14. A. *It is said that the sibling chopped the man's fox by the pan.*

15. B. *Because of the doctor, the fox's fly knows the khan.*

16. C. *The khan's wolf sent the witch to the cow by the water.*

(8 pt) [Matching: 2 pt, no partial point. Translation: 1.5 pt each. 1 pt is deducted for incorrect tense.

1 pt is deducted for any incorrect noun cases.]

(c)

17. **sojrotleru q'alal tsan biq'i**

18. **t'ut'i xanil om<sup>f</sup>oq<sup>f</sup>es t'uq<sup>f</sup> left'in**

19. **zuliklo ifet'i toxturus uze it'ox**

20. **uzala xerexoz xina zoril qartaj jezi**

(10 pt) [2.5 pt each. 1 pt is deducted for each incorrect or missing word. 1 pt is deducted for incorrect sentence structure. 0.5 pt is deducted for each misspelling.]

### Reference

Khalilova, Zaira. (2009). *A Grammar of Khwarshi*. Utrecht: LOT, Netherlands Graduate School of Linguistics.

## Problem 4 Alabama

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### Answer

(a)

- |                                      |   |  |
|--------------------------------------|---|--|
| 1. <b>aatiłáło</b>                   | [human][fish]                                 | D. <i>mermaid, merman</i>                                |
| 2. <b>abàalokchakkoyáhchi</b>        | [sky][blue/green][like]                       | K. <i>sky-blue</i>                                       |
| 3. <b>biłłika</b>                    |   | O. <i>be pointed at</i>                                  |
| 4. <b>chastokokcháako</b>            | [pea][green, not ripe]                        | A. <i>green peas</i>                                     |
| 5. <b>chinto</b>                     |   | J. <i>snake</i>  |
| 6. <b>chinto isbakpàtha</b>          | <i>snake</i>   [head][wide/flat]              | G. <i>cobra</i>  |
| 7. <b>chintooláło</b>                | [snake][fish]                                 | E. <i>eel</i>  |
| 8. <b>chooskani ichiksa okchakko</b> | <i>duck</i>   <i>nape</i>   <i>blue/green</i> | N. <i>mallard</i>  |
| 9. <b>ilbipatha</b>                  | [hand][wide/flat]                             | F. <i>palm (of the hand)</i>                             |
| 10. <b>ilbistimbiłłika</b>           | [hand]...[be pointed at]                      | M. <i>index finger</i>                                   |
| 11. <b>ilbistimbiłłika istatòkla</b> | <i>index finger</i>   <i>second</i>           | L. <i>middle finger</i>                                  |
| 12. <b>ilbochòosi</b>                | [hand][son]                                   | B. <i>little finger</i>                                  |
| 13. <b>mikko istatòkla</b>           | <i>president/chief</i>   <i>second</i>        | I. <i>vice president</i>                                 |
| 14. <b>ochòostoba</b>                | [son][become]                                 | H. <i>nephew</i>   |
| 15. <b>okcháako</b>                  |   | C. <i>green, not ripe (as tender vegetable or fruit)</i> |

(12 pt) [1 pt is deducted for each incorrect answer.]

(b)

16. *pea*

17. *God*

(3 pt) [1 pt for question 16, and 2 pt for question 17. Similar meanings allowed.]

(c)

18. **chooskani**

19. **mikko**

20. **ilbochòosi istatòkla**      *little finger* | *second*

21. **aati**

(5 pt) [2 pt for question 20, and 1 pt each for the rest.]

### Reference

Sylestine, Cora; Hardy, Heather K.; Montler, Timothy. (2021). *Dictionary of the Alabama language*. Austin: University of Texas Press.

**Photo Credit**

cobra © Pavan Kumar N

mallard © Richard Bartz



## Problem 5 Central Bikol

Morphology: [TAM prefix]-[stem]

There are two series of the TAM prefixes: the **mag-** and the **maN-** series. The former is generally applied to transitive and intransitive verbs, referring to specific actions. The latter is mostly used to express the situation or general impact of an action in an intransitive way.

The TAM prefixes of the verb are as below:

prefix series	command	past tense	future tense	progressive tense
<b>mag-</b> series	<b>mag-</b>	<b>nag-</b>	<b>ma-</b>	<b>nag-R-</b>
<b>maN-</b> series	<b>maN-</b>	<b>naN-</b>	<b>maN-R-</b>	<b>naN-R-</b>

The **N** represents a nasal that participates in assimilation. It is combined with the following **b, p** to form **m**, combined with a following **d, t, s** to form **n**, and combined with **g, k, h** to form **ng** (absent in this problem). When preceding a vowel, the **N** is **ng** (absent in this problem).

The **R** represents reduplication of the following (C)V.

The above-mentioned TAM prefixes are all in actor-focus.

The stems of the verbs in the angry register are different from those in the normal register.

### Answer

(a)

- |                          |  |
|--------------------------|--|
| 1. <b>maapód</b>         | D. <i>will call</i>                    |
| 2. <b>magdayán-dáyan</b> | G. <i>Roam around! (said in anger)</i> |
| 3. <b>magkakán</b>       | H. <i>Eat!</i>                         |
| 4. <b>makakán</b>        | B. <i>will eat</i>                     |
| 5. <b>nagbaláw-bagáw</b> | E. <i>roamed around</i>                |
| 6. <b>nagaapód</b>       | I. <i>be calling</i>                   |
| 7. <b>naghahabló</b>     | F. <i>be eating (said in anger)</i>    |
| 8. <b>nagkakán</b>       | J. <i>ate</i>                          |
| 9. <b>nagtata?ó</b>      | C. <i>be giving</i>                    |
| 10. <b>nagta?ó</b>       | A. <i>gave</i>                         |

(9pt) [1 pt is deducted for each incorrect answer.]

(b)

- |                     |                                 |
|---------------------|---------------------------------|
| 11. <b>magbakál</b> | M. <i>Buy!</i>                  |
| 12. <b>magserá?</b> | Q. <i>Lock!</i>                 |
| 13. <b>mamatós</b>  | O. <i>Pack! (as for a trip)</i> |
| 14. <b>manana?ó</b> | R. <i>will give away</i>        |

- |                        |                                       |
|------------------------|---------------------------------------|
| 15. <b>mapulá</b>      | P. <i>will color something red</i>    |
| 16. <b>nagpapatós</b>  | N. <i>be wrapping</i>                 |
| 17. <b>nagtutusmág</b> | S. <i>be sleeping (said in anger)</i> |
| 18. <b>namamakál</b>   | K. <i>be going shopping</i>           |
| 19. <b>namulá</b>      | L. <i>blushed</i>                     |
| 20. <b>nanerá?</b>     | T. <i>closed up (as a store)</i>      |

(9pt) [1 pt is deducted for each incorrect answer.]

(c)

21. *will go shopping*

(1pt)

(d)

22. **nanenerá?**

(1pt)

### Reference

- Khan, Reashiela. (2013). When Bicolanos Get Angry. *The Exchange* VII(7):9-11.
- Lobel, Jason William. (2005). The Angry Register of the Bikol Languages of the Philippines. *Current Issues in Philippine Linguistics and Anthropology*. Linguistic Society of the Philippines and SIL-Philippines, 149-166.
- Mintz, Malcolm W. (1971). *Bikol Dictionary*. Honolulu: University of Hawaii Press.