

Sixth Asia Pacific Linguistics Olympiad

April 7 – 21, 2024

Solutions

Problem 1.

1. Sentence structure: (S) T V O

	past tense	future tense	
- T =	nno	ka	S = 1 st SG
	o	e	S = 2 nd SG
	mV *	a	S = 3 rd SG

* V = following vowel

2. Possession (N₁'s N₂):

Possessee	Possessor
N ₂ - kin terms, body parts	-ku 1 st SG
N ₂ a- food	-m 2 nd SG
N ₂ ma- drinks	-na 3 rd SG
N ₂ bula- animals (≠ pig)	-n N ₁ noun
N ₂ no- others (≧ pig)	

- (a) pig
- (b) 13. *I ate the chief's pig.*
 14. *He will bite his chicken meat.*
 15. *You (SG) looked at the cat.*
- (c) 16. **viriu bulam ma an batun masi**
 17. **mo ote niu nom**
 18. **ka sile vamol maku**
- (d) 19. **baheo amiu** — D. *your (PL) shark meat*
 20. **nani bulara** — C. *their goat*
 21. **tinamam** — B. *our (EXCL) mother*
 22. **voi noda** — A. *our (INCL) guest*

Problem 2.

- (a)
- | | | | | |
|-----|---------------------|------|------------------------|------------------------|
| 1. | kali lar | — E. | <i>door</i> | ← <i>cover + house</i> |
| 2. | kali mir | — F. | <i>eyelid</i> | ← <i>cover + eye</i> |
| 3. | katjin mir | — J. | <i>tears</i> | ← <i>water + eye</i> |
| 4. | kurrki mir | — C. | <i>red eyes</i> | ← <i>blood + eye</i> |
| 5. | marti karr | — B. | <i>big nose</i> | ← <i>big + nose</i> |
| 6. | marti katjin | — G. | <i>flood</i> | ← <i>big + water</i> |
| 7. | miRk-purrp | — D. | <i>brain</i> | ← <i>egg + head</i> |
| 8. | purrp | — H. | <i>head</i> | ← <i>head</i> |
| 9. | purрпи lar | — I. | <i>roof</i> | ← <i>head + house</i> |
| 10. | puRt kurrk | — A. | <i>bad/evil spirit</i> | ← <i>smoke + blood</i> |
- (b)
- | | | | | |
|-----|----------------------|------|---------------------------|--------------------------------|
| 11. | kalki tjina | — K. | <i>bones of the foot</i> | ← <i>tree/bone + foot</i> |
| 12. | kalki werp | — S. | <i>spine, backbone</i> | ← <i>tree/bone + stem/root</i> |
| 13. | kurri | — L. | <i>kangaroo</i> | ← <i>kangaroo</i> |
| 14. | murti kalk | — Q. | <i>short tree</i> | ← <i>short + tree/bone</i> |
| 15. | murti paR | — P. | <i>short river</i> | ← <i>short + river</i> |
| 16. | paR | — O. | <i>river</i> | ← <i>river</i> |
| 17. | paR manya | — N. | <i>octopus</i> | ← <i>river + hand</i> |
| 18. | putj | — U. | <i>stomach</i> | ← <i>inside</i> |
| 19. | putji karr | — M. | <i>nostril</i> | ← <i>inside + nose</i> |
| 20. | putji tjina | — R. | <i>sole (of the foot)</i> | ← <i>inside + foot</i> |
| 21. | wartipi kalk | — T. | <i>stick</i> | ← <i>young + tree/bone</i> |
| 22. | wartipi kurri | — X. | <i>young kangaroo</i> | ← <i>young + kangaroo</i> |
| 23. | wartipi liti | — W. | <i>unmarried woman</i> | ← <i>young + woman</i> |
| 24. | wartipi tjina | — V. | <i>toe</i> | ← <i>young + foot</i> |
- (c) 25. **kalk** — *tree, bone* 26. **katjin** — *water* 27. **liti** — *woman*
- (d) 28. *old kangaroo* — **marti kurri** 29. *finger* — **wartipi manya** 30. *skull* — **kalki purrp**

Problem 3.

French	Bambara
v	w
ʃ	s
ʒ	z
ʀ	r
y	i
ə	e
œ	ɛ
ɑ	a
CC	$\underline{C}V_\epsilon C^*$
...C	... $\underline{C}V_\epsilon^*$

$$* V_\epsilon = \begin{cases} V_\alpha & \begin{cases} \dots \underbrace{CV_\epsilon}_{\sigma_{2k-1}} \underbrace{r\tilde{V}_\alpha}_{\sigma_{2k}} \dots \\ \dots \underbrace{C\tilde{V}_\alpha}_{\sigma_{2k-1}} \underbrace{rV_\epsilon}_{\sigma_{2k}} \dots \end{cases} & (C \notin \{\mathbf{m}, \mathbf{n}\}) \\ \mathbf{i} & \text{otherwise} \end{cases}$$

(∴ Syllable structure (Bambara):

$$\begin{cases} \sigma_1 \text{ (word-initial): } CV \text{ or } V \\ \sigma_{n \neq 1} \text{ (elsewhere): } CV \end{cases}$$

- (1) **tɔrɔsi** (2) **gitari** (3) **farāsi** (4) **ɛsipɛkitere** (5) **marisi**
 (6) **zaradɛ** (7) **dirɛkiteri** (8) **etamazɔri** (9) **mɔrifini** (10) **ɛfɔrimatiki**

Problem 4.

1. Sentence structure:

S O (Inst) V

2. Pronouns:

	1 st	2 nd
SG	omo	neme
PL	eeme	eme

3. Noun phrase structure:

(Poss) N (Adj)

– Possessor (Poss):

Poss	1 st	2 nd	3 rd
SG	o-	ne-	na-
PL	ee-	e-	ne-

+ {
 -N body parts
 -bae N otherwise

– Adjective (Adj):

N		STEM
na-	animate (SG)	
ne-	animate (PL)	
a-	inanimate	

4. Instrument (Inst): noun + **-t**

5. Verb stems: **mesi-** hide; **nay-** chase; **imbi-** drop; **bu-** hit; **maitav-** carry.

O =	inanimate	animate
navairj-	pull back	catch (fish)
te-	cut	sacrifice
uvu-	dip in the water	make swim

* Reduplication (keep ...ing):

bu- → **bumbu-** keep hitting

maitav- → **maimaitav-** keep carrying

6. Verb structure:

STEM — SUBJ — OBJ

O =	inanimate	animate	
SUBJ	-onggai	-omn	1 st SG
	-osei	-osny	1 st PL
	-onai	-onn	2 nd SG
	-oiei	-ony	2 nd PL
	-emai	-emny	3 rd SG
	-enggei		3 rd PL
OBJ	∅	-ai	SG
		-ev	PL

- (a) 13. *I carried the black sheep (PL).*
 14. *You (SG) dropped our bow.*
 15. *We dipped our hair in the water using our hands.*
 16. *I cut (PAST) the small net.*

- (b) 17. **tat neii javii avwer imbiemai** { *The small child dropped the big basket.*
 ↓ ↓ { *The small children dropped the big basket.*
 PL S = SG

- (c) 18. **eeme uratu nevwer teosnyev**
 19. **omo nebae aasi nasai uvuomnai**
 20. **eme nabaev avu fuatit mesionyai**
 21. **neme nebae javii aii nerovot bumbuonai**

Problem 5.

	X	10X
1	ka	ter
2	ana	metsy
3	asym	semyr
4	pezy	lir
5	pungu	tenem
6	trok	rokyr
7	tenet	tenem ser metsy
8	ti	lir anasy
9	tyko	telang tyko

$$10X + Y = \begin{cases} \boxed{10X}\text{-ri}^* Y & 0 < Y \leq 4 \\ \boxed{10(X+1)}\text{ maben } Y & 4 < Y \leq 9 \end{cases}$$

* **ri** → **i** / **r** _

- (a) (1) $51 + 23 = 74$
 (2) $44 + 25 = 69$
 (3) $7 + 8 = 15$
 (4) $16 \times 5 = 80$
 (5) $12 \times 2 + 63 = 87$

- (6) $28 + 42 = 70$
 (7) $9 \times 6 = 54$
 (8) $84 - 35 = 49$
 (9) $13 \times 6 = 78$

- (b) 10 **te(r)**
 31 **semyri ka**
 36 **lir maben trok**
 58 **roky(r) maben ti**
 93 **telang tykori asym**

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