

en

Sixth Asia Pacific Linguistics Olympiad

7 – 21 April 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 ($\not\exists$ pig)			-n N ₁ noun	
N ₂ no - others (\ni 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. currki 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. purrpi lar | — I. <i>roof</i> | ← <i>head + house</i> |
| 10. puRt currk | — 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
r	r
y	i
ə	e
œ	ɛ
ɑ	a
CC	CV _ε C *
...C	...CV _ε *

* $V_\epsilon = \begin{cases} V_\alpha & \left[\begin{array}{c} \dots \underbrace{CV_\epsilon}_{\sigma_{2k-1}} \underbrace{rV_\alpha^{(\sim)}}_{\sigma_{2k}} \dots \\ \dots \underbrace{CV_\alpha^{(\sim)}}_{\sigma_{2k-1}} \underbrace{rV_\epsilon}_{\sigma_{2k}} \dots \end{array} \right] \quad (C \notin \{m, n\}) \\ i & \text{otherwise} \end{cases}$

$\left(\begin{array}{c} \because \text{Syllable structure (Bambara):} \\ \left\{ \begin{array}{ll} \sigma_1 & (\text{word-initial}): CV \text{ or } V \\ \sigma_{n \neq 1} & (\text{elsewhere}): CV \end{array} \right. \end{array} \right)$

- (1) **tɔrɔsi** (2) **gitari** (3) **farāsi** (4) **ɛsipɛkitere** (5) **marisi**
 (6) **zaradē** (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-

+ $\begin{cases} -N & \text{body parts} \\ -bae N & \text{otherwise} \end{cases}$

- Adjective (Adj):

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

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

- (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 avver imbiemai
 \downarrow \downarrow
 PL S = SG $\left\{ \begin{array}{l} \text{The small child dropped the big basket.} \\ \text{The small children dropped the big basket.} \end{array} \right.$

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

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

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

* Reduplication (*keep ...ing*):

bu- → **bumbu-** *keep hitting*

maitav- → **maimaitav-** *keep carrying*

6. Verb structure:

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

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

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

* $ri \rightarrow i / r$ _

- (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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