

## Sixth Asia Pacific Linguistics Olympiad

7 – 21 April 2024

## Solutions

## Problem 1.

1. Sentence structure: (S) T V O

|       | past tense  | future tense |                        |
|-------|-------------|--------------|------------------------|
| – T = | <b>nno</b>  | <b>ka</b>    | S = 1 <sup>st</sup> SG |
|       | <b>o</b>    | <b>e</b>     | S = 2 <sup>nd</sup> SG |
|       | <b>mV *</b> | <b>a</b>     | S = 3 <sup>rd</sup> SG |

\* V = following vowel

2. Possession (N
- <sub>1</sub>
- 's N
- <sub>2</sub>
- ):

| Possessee   |   | Possessor                     |
|---|---|-------------------------------|
| N <sub>2</sub> - kin terms, body parts              |   | <b>-ku</b> 1 <sup>st</sup> SG |
| N <sub>2</sub> <b>a-</b> food                       |   | <b>-m</b> 2 <sup>nd</sup> SG  |
| N <sub>2</sub> <b>ma-</b> drinks                    |   | <b>-na</b> 3 <sup>rd</sup> SG |
| N <sub>2</sub> <b>bula-</b> animals (≠ <i>pig</i> ) | + | <b>-n</b> N <sub>1</sub> noun |
| N <sub>2</sub> <b>no-</b> others (≡ <i>pig</i> )    |   |                               |

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

**Problem 3.**

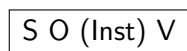
| French | Bambara                      |  |
|--------|------------------------------|--|
| v      | w                            | $* V_{\epsilon} = \begin{cases} V_{\alpha} & \begin{bmatrix} \dots \underbrace{CV_{\epsilon}}_{\sigma_{2k-1}} \underbrace{r\tilde{V}_{\alpha}}_{\sigma_{2k}} \dots \\ \dots \underbrace{C\tilde{V}_{\alpha}}_{\sigma_{2k-1}} \underbrace{rV_{\epsilon}}_{\sigma_{2k}} \dots \end{bmatrix} \\ i & \text{otherwise} \end{cases} \quad (C \notin \{\mathbf{m}, \mathbf{n}\})$ |
| ʃ      | s                            |  |
| ʒ      | z                            |  |
| r      | r                            |  |
| y      | i                            |  |
| ə      | e                            |  |
| œ      | ɛ                            |  |
| a      | a                            |  |
| CC     | <u>CV</u> <sub>ε</sub> C *   |  |
| ...C   | ... <u>CV</u> <sub>ε</sub> * |  |

( ∴ Syllable structure (Bambara): )

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

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

1. Sentence structure:



|    | 1 <sup>st</sup> | 2 <sup>nd</sup> |
|----|-----------------|-----------------|
| SG | <b>omo</b>      | <b>neme</b>     |
| PL | <b>eeme</b>     | <b>eme</b>      |

(Poss) N (Adj)

| Poss | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> |
|------|-----------------|-----------------|-----------------|
| SG   | <b>o-</b>       | <b>ne-</b>      | <b>na-</b>      |
| PL   | <b>ee-</b>      | <b>e-</b>       | <b>ne-</b>      |

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

| N          |              |
|------------|--------------|
| <b>na-</b> | animate (SG) |
| <b>ne-</b> | animate (PL) |
| <b>a-</b>  | inanimate    |

STEM

(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.*  
               ↓    ↓  
               PL                                      S = SG      { *The small children dropped the big basket.*

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

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

**bu-** → **bumbu-** *keep hitting*  
**maitav-** → **maimaitav-** *keep carrying*

STEM — SUBJ — OBJ

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

**Problem 5.**

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

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

\* **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**

*The remainder of this page is intentionally left blank.*