

# en(B)

## Seventeenth International Linguistics Olympiad

Yongin (Republic of Korea), 29 July – 2 August 2019

Individual Contest Solutions

**Problem 1.** Word order:

- (O)  $V-l_S$  ( $S = \text{subject}$ ;  $O = \text{object}$ ;  $V = \text{predicate}$ )
- $(O_1) V_1-l_S^= (O_2) V_2-l_S$
- $(O_1) V_1-l_{S_1}-a (O_2) V_2-l_{S_2}$  ( $S_1 \neq S_2$ )
- $N_1-a N_2-a$  ‘ $N_1$  and  $N_2$ ’ ( $N = \text{noun}$ )

before a vowel: **b > w**

In some verbs the vowel in the last syllable of the root assimilates to the vowel of the first syllable of the ending.

S	$l_S^=$ ( $S_1 = S_2$ )	$l_S$		
		past	present	future
1st person sg	-en-i	-aan	-iin	-an-iin
2nd person sg	-en-eb		-eeb	-an-eeb
3rd person sg m	-en-e	-oon	-een	-an-een
3rd person sg f	-en-u	-een	-uun	-an-uun
1st person pl	-en-ub		-uub	-an-uub
3rd person pl	-en-ib		-iib	-an-iib

- (a) 12. **Om benu aneen.** *She took the bread and ate it.*  
13. **Munuuma wunuub.** *She comes and we go away.*  
14. **Wingkiwa wengamburuun.** *They sing and she hears.*  
15. **Anon ye weng wengamberenib yeedaraniib.** *They will hear the dog and will get up.*  
16. **Oon wedmaniina karub wedmaneeb.** *I will see the fish and you(sg) will see the man.*  
17. **Ok wedmeena aniiin.** *He sees the water and I drink it.*
- (b) 18. *We will go away and they will come.* **Wananuuwa mananiib.**  
19. *I take the pig and he takes the fish.* **Awon biina oon been.**  
20. *He saw the water and the house and heard the dog.* **Oka ambiwa wedmene anon ye weng wengamboroon.**  
21. *You(sg) eat the bread and sing.* **Om aneneb wingkeeb.**

**Problem 2.** Word order: A N (A = adjective, N = noun).

Colours:	#FFFFFF	#FF0000	#964B00	#000000
animals	<b>muent-er'ery</b>		s'erkt-er'ery	ler'erg-ery
trees		<b>pekoy-ar'</b>		lo'og-ar'
round things	<b>muench-erh</b>	<b>perkery-erh</b>		
everything	<b>muench-ey</b>		s'okt-oy	lo'og-ey

- (a) 1. **muencherh rohkuen** G. *white ball*  
 2. **perkeryerh holeehl 'wernerh** M. *red hazelnut*  
 3. **muencherh nerhperry** D. *white berry*  
 4. **s'erkter'ery ch'eeshah** A. *brown dog*  
 5. **muenchar' pyaap'** H. *white manzanita bush*  
 6. **pekoyar' tepoo** K. *red tree*  
 7. **luuehlson' nerhperry** N. *purple berry*  
 8. **muenchey cheek'war** I. *white chair*  
 9. **muenter'ery ch'eeshah** F. *white dog*  
 10. **ler'ergery cher'ery** C. *black bear*  
 11. **'errwerhson' slekwoh** L. *grass-green shirt*  
 12. **muenter'ery puuek** P. *white deer*  
 13. **lo'ogey slekwoh** O. *black shirt*  
 14. **s'oktoy no'oy** E. *brown shoe*  
 15. **'wer'errgerchson' cher'ery** J. *orange bear*  
 16. **lo'ogey no'oy** B. *black shoe*  
 17. **tegee'n nerhperry** R. *yellow berry*  
 18. **skoyon rohkuen** Q. *blue ball*
- (b) 19. **muencherhl** V. *milk*  
 20. **'wer'errgerch** W. *alder tree*  
 21. **luuehl** X. *wild iris*  
 22. **ler'egerh** T. *coffee bean*  
 23. **pekoyek** U. *blood*  
 24. **skoyon** Y. *sky*  
 25. **tegee'n** S. *canary*
- (c) 26. **'errwerh** — *grass*  
 27. **ler'ergerh rohkuen** — *black ball*  
 28. **perkeryer'ery ch'eeshah** — *red dog*  
 29. **pyerrp't'ery ch'eeshah** — *reddish-brown dog*
- (d) 30. *purple deer* — **luuehlson' puuek**  
 31. *white shoe* — **muenchey no'oy**  
 32. *yellow ball* — **tegee'n rohkuen**  
 33. *black tree* — **lo'ogar' tepoo**

**Problem 3.** The direction of writing is from right to left.

- [in the Book Pahlavi script]  $\leftrightarrow$  [scientific transliteration]:

<b>A</b>	$\text{ə}$ , A, h	<b>n</b>	n, r, w, '
<b>b</b>	b	<b>z</b>	z
<b>i</b>	d, g, y, Z	<b>k</b>	k
<b>h</b>	E	<b>r</b>	l
<b>x</b>		<b>s</b>	s
		<b>t</b>	š
			t

- [[ligatures]]:

<b>DX</b> $\leftarrow$ <b>A+A</b>	<b>s</b> $\leftarrow$ <b>A-i</b>	<b>D</b> $\leftarrow$ <b>A+r</b>	<b>zx</b> $\leftarrow$ <b>x+z</b>
<b>TeX</b> $\leftarrow$ <b>t+A+A</b>	<b>A</b> $\leftarrow$ <b>i+i</b>	<b>H</b> $\leftarrow$ <b>n x+r</b>	<b>Def</b> $\leftarrow$ <b>A+i+i+i</b>
<b>W</b> $\leftarrow$ <b>i+A</b>	<b>Def</b> $\leftarrow$ <b>A+A-i+i</b>	<b>R</b> $\leftarrow$ <b>c+r</b>	<b>igf</b> $\leftarrow$ <b>n ll</b>
<b>s vññ</b> $\leftarrow$ <b>s+i+x+A</b>	<b>TF</b> $\leftarrow$ <b>t+i+i</b>	<b>T</b> $\leftarrow$ <b>t+r</b>	<b>TF</b> $\leftarrow$ <b>t+ll</b>
<b>PX</b> $\leftarrow$ <b>c+A</b>	<b>DSM</b> $\leftarrow$ <b>A-i+x+i</b>	<b>Tf</b> $\leftarrow$ <b>t+i</b>	<b>Tef</b> $\leftarrow$ <b>t+s</b>

- [scientific transliteration]  $\leftrightarrow$  [transcription]:

$\text{ə}$	$\emptyset$ -,, ā	<b>k</b>	k, -g
<b>b</b>	b	<b>l</b>	l, r
<b>c</b>	č, -z	<b>m</b>	m
<b>d</b>	d, -y, ē	<b>n</b>	n
<b>g</b>	g	<b>r</b>	r
<b>h</b>	h, x	<b>s</b>	s
<b>š</b>		<b>š</b>	š
		<b>t</b>	t, -d, h
		<b>w</b>	w, ū, u, ū
		<b>y</b>	j, -y, ī
		<b>z</b>	z
		'	-∅
		—	a, e, i

(a)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
E	CC	G	Y	D	CC	K	S	V	L	I	Z	P	DD	O	M	B
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
F	X	C	BB	V	AA	J	T	Q	H	T	U	W	R	A	F	N

(b) U. **\$** =  **hlmn'** Ahreman ‘the evil spirit’.

(c) EE. **mb** b<sup>ə</sup>nbšn' bāmbišn queen

FF. **DXc** ch<sup>ə</sup>l čahār four

GG. **rt** tl tar over, through, across

HH. **TeX** h<sup>ə</sup>k' xāk earth, dust

II. **hñ** hwn' xōn blood

JJ. **hwk'** hūg pig

(d)

KK. **DKRA** a **ñ**

LL. dlwnd **i** **ñ**

MM. stwl **r** **ñF**

NN. cmlb **r** **ñc**

**Problem 4.**  $\overset{R}{\downarrow} C_1 V C_2$  (V is the stressed vowel)

- North dialect:  $R = C_1 \acute{V} C_2$ , but
  - $C_1 = C_2 \Rightarrow R = C_1 V$
  - there is a vowel before  $C_1 \Rightarrow R = C_2$
- Coast dialect:  $R = C_1 \acute{V}_1 C_2 V_2$ , but
  - $\neg \exists V_2 \Rightarrow R = C_1 V_1 C_2$
  - $\exists V_2 \wedge C_2 \in \{C_1, k, g, \eta, w\} \Rightarrow R = C_1 V_1$

( $C_1, C_2$  are consonants;  $V, V_1, V_2$  are vowels)

Answers:	North dialect	Coast dialect
etaleŋja	etan <u>ŋ</u> leŋja	etale <u>ŋ</u> eŋja
jaga	jag <u>ŋ</u> aga	jajaga
gasírana	garsírana	gas <u>ɪ</u> rasírana
daramota	dar <u>ɪ</u> tmota	daramot <u>ɪ</u> mota
pɔwna	p <u>ɔ</u> w <u>ɔ</u> wna	p <u>ɔ</u> w <u>ɔ</u> wna
ertɔpa	ert <u>ɔ</u> pt <u>ɔ</u> pa	ert <u>ɔ</u> pat <u>ɔ</u> pa
dabuka	dak <u>ɔ</u> buka	dab <u>ɔ</u> ubuka
ηuŋim	η <u>u</u> ŋηim	η <u>u</u> ŋηim
igóŋ	i <u>ŋ</u> góŋ	ig <u>ɔ</u> ŋ <u>ɔ</u> ŋ

**Problem 5.** Rules:

- word order:

– A (T) nú B  $\left( \text{‘A is B’/‘A was B’, T = tense: } \begin{cases} \text{cí} & (\text{past}) \\ \emptyset & (\text{future}) \end{cases} \right)$

– S T V O (lé) L D

(S = subject, V = predicate, O = object, L = place, D = day)

- \* ‘to see’ = yɛn (O) lé
- \* after a consonant: lé > é

	tense	‘just now’/‘be about to ...’	today	< 3 days	> 3 days
• tense:	past (V̄)	nô:	bɛ:	cí nô:	tò nô:
	future (V̄)	nú	nú gé:	nú bój	nú yú:

- 1st person sg: n- + T/V

- nb > mb
- nk/ng > ɲk/ŋg
- nn > n

- after ˘, ˇ, ˘: ˘ > ˘

Answers:

- (a) 16. bvúsòw nǔ fò shě ntfū:. *Bvusɔw* is the day after tomorrow.  
 17. me nú ɲgé: nyén kèŋkfū lé ɛbèn. Today, I will see the yam.  
 18. wvù tò nô: yɛn bèsèn ē bvúmbòn. On *Bvumbon*, he saw us.  
 19. bèsèn nǔ bój tó fɔwāy bvúzhī:dèn. On *Bvuzhiden*, we will come to the market.
- (b) **Bvutfu, Bvunka, Bvuzhi, Bvukema, Bvuŋkaden, Bvuzhiden, Bvusɔw, Bvumbon.**
- (c) 20. *On Bvusɔw, I helped the man.* me ncí nô: nfí dìɛmsɛn bvúsòw.  
 21. *The thief stole the yam just now.* cɔŋ nô: cɔŋ kèŋkfū.  
 22. *On Bvuŋkaden, I will hear the car.* me nú nyú: nyów mutù bvûŋkâ:dèn.  
 23. *Today, the woman will kill the man.* kwɔ:n nǔ gé: yó dìɛmsɛn ɛbèn.  
 24. *Today, the man saw you(sg).* dìɛmsɛn bɛ: yɛn wò lè ɛbèn.