



First Hong Kong Linguistics Olympiad (2019)

Individual Contest Problems

Solutions

24 March 2019

The Hong Kong Polytechnic University

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Rules for writing out the solutions

Do not copy the statements of the problems. Write down your solution to each problem on the answer booklet. Your answers must be well-supported by argument. Even a perfectly correct answer will be given a low score unless accompanied by an explanation.

Problem 1 (15 points). Taiwanese Southern-Min 1x15+bonus6+bouns3=24

(1) (1x15)

1. aluminum
2. ammonia
3. aspirin
4. ice cream
5. out
6. karaoke
7. camera
8. catalogue
9. curtain
10. kilo
11. cup
12. concrete
13. cholera
14. commission
15. coat

(2) (6pt)

1. All syllables are assigned tones;
2. Syllable can only have the structure of 1) vowel; 2) consonant+vowel; 3) consonant+vowel+consonant and without consonant cluster;
3. English syllable word final consonants can only be kept when it is non-labial nasal (i.e. -n, -ng), otherwise it will either be 1) pronounced with a vowel added or 2) dropped;
4. All the retroflex sound /r/ is pronounced as /l/, for example, camera ['kæm(ə)rə] - [kha me lah];
5. No diphthong in the loan words – it will be replaced by a long vowel, e.g. kilo [ki:ləu] - /əu/ is pronounced as /oo/; coat [kəut] - /oo/;
6. No shwa /ə/ in loan words – replaced by /e/ or /a/, e.g. cholera ['kɒləɾə] – [kohh le lah];
7. All open (i.e. not ending in consonant) and nasal ending syllables have full (long) duration, others (ending in -p, -t, -k, -h) have short/abrupt/abbreviated tones;
8. All the segments (vowels and consonants) can be mapped back to original English segment, but not the ending consonant in with abrupt tones (e.g. -p, -t, -k, -h) as some of them are added without corresponding sounds in English.

(3) (3pt)

These abrupt syllables are special phonological characteristics of Taiwanese Min-nan as some of them do not exist in their loan source. They normally end with voiceless consonants /h/ /k/ and /p/ (as shown in /tsiap₅/ /sap₅/ in the examples).

[The following part of answer is NOT required as it does take some learned linguistic knowledge and cannot be derived from the data alone] These abrupt tones are what is called 'entering tone' 入聲 in Chinese. They are words with short duration ending with unreleased consonants, i.e. the consonants are not pronounced fully, only the initial part of it is pronounced, resulting in the syllable being perceived as cutting short, ending abruptly. Hence these are all voiceless consonants and -h in fact stands for glottal stop.

Problem 2 (15 points). Czech answer1.5x8+explanation3=15

-----Translate from English to Czech-----

(various combinations of word order are possible, obviously, what should not be separated: with+noun; do Prahy, v Praze, do kina, do lesa, se mnou).

1. Petr wants to fly with Jana **Petr chce letět s Janou.** (11 - Petr; 7- nechce +inf, should change negation of a verb; 6 (with Jana))

2. Maruška lived in Prague with Filip. **Maruška žila s Filipem v Praze.** (3 - Maruška; 8 – to live + the marker of a feminine gender -a should be attached as the subject is fem. ; Filip is a new name, should be identified as masculine because all masculine names in the examples end with a consonant, so the marker -em should be added)

3. I didn't live with Jakub. **Nežil jsem s Jakubem.** (Should be derived from 8+9+3)

4. Jakub went with Anna to the cinema. **Jakub jel s Annou do kina.** (from 1+2; 6 (Anna/Jana vs. s Annou/Janou))

-----Translte from Czech to English-----

5. Neletěla jsem s Petrem k moři. **I didn't fly to the sea with Petr.** (6+1+2)

6. Rudolf nechce abych letela do Prahy. **Rudolf doesn't want me to fly to Prague.**(11+7+4)

7. Anna chce aby Petr žil v Praze s Janou. **Anna wants Petr to live with Jana in Prague.** (11+5)

8. Potkal jsem Janu. **I met Jana.** (5+9)

Explanation:

In Czech, the predicate(verb) in the past tense agrees with the subject in gender (also, number, but not in those examples.) So some subjects are feminine: *Jana, Maruska, Anna*, and the verbs are thus *jela, nejela, potkala* - ending "la". While for male names: *Jakub, Petr, Filip, Rudolf* the observed ending is "l". For the first person (I), the auxiliary verb 'jsem' is used.

From the sentence 10. participants should get that pronoun 'he' is dropped, but the gender of the pronoun still agrees with the verb (*letěl*).

Another issue is the Instrumental case (with somebody), which also depends on the gender: **-em** for masculine and **-ou** for feminine. (*s JakubEM* vs. *S JanOU*)

Also, in the case of the verb 'potkat'/potkal/potkala, the object is in Accusative case, and only one word is used, so it is straightforward to translate (example 5 – *potkal Janu*). Example 10 is just a 'control' one.

Problem 3 (15 points). Welsh

(1) Welsh is a VSO language. In some cases, such as (2) an auxiliary verb comes at the start of the clause. In other cases, such (7) and (8), a constituent is topicalised. However, the basic word order is still VSO. (1+2)

(2) Gwelodd
Gweld
Welais
Welodd (4+1)

(3) They are particles that mark different types of embedded clauses. (2)

Problem 4 (15 points). Tibetan answer 15.5+explanation4.5=20

(1) (1x7)

dbang grol 'thams phrug bsleb bsgrigs brkyang

(2) (0.5x17)

tṣī tṣin (1 3 4 9 13)

tṣu ndzək (3 5)

ta nda nda (7 11)

jø jol (8 14)

ly ləl (4 5 6 7 8 9 10 11 15)

ku gu hgə (6 7)


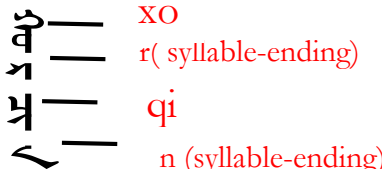

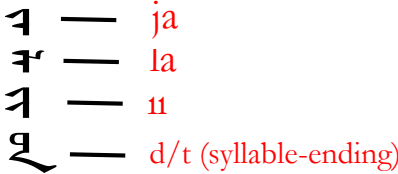

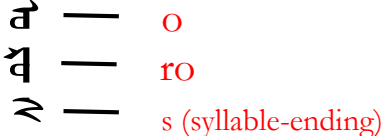

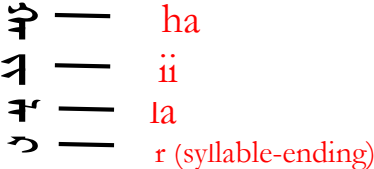
tṣ^{hi} tṣi tṣə (1 2 6 9 12)


Problem 5 (20 points). Mongolian answer 20+bonus1+explanation bonus 5=26

(1) Match each Mongolian name with its Latin transliteration and its meaning. Fill in the blank by writing down the number of the Mongolian place names listed above. (1x17)

	Mongolian	Latin transliteration	Chinese translation
example	0	<i>mongol</i>	蒙古
a	6	<i>ordos</i>	鄂爾多斯
b	16	<i>bugutu</i>	包頭
c	5	<i>xöndelen</i>	昆都侖
d	2	<i>jarud</i>	扎魯特
e	13	<i>tümed</i>	土默特
f	11	<i>arun</i>	阿榮
g	17	<i>xaraqin</i>	喀喇沁
h	8	<i>üjümüqin</i>	烏珠穆沁
i	7	<i>naiman</i>	奈曼
j	1	<i>xoringer</i>	和林格爾
k	4	<i>buiir</i>	貝爾
l	15	<i>dalat</i>	達拉特
m	3	<i>sönid</i>	蘇尼特
n	14	<i>xölün</i>	呼倫
o	9	<i>dörbed</i>	杜爾伯特、四子王
p	10	<i>darxan</i>	達爾罕
q	12	<i>xoolin</i>	霍林







(2) Write down the correct Latin transliterations for the following place names. (1x4)

Mongolian	Latin transliteration	Chinese translation	Syllable-by-syllable transliteration
	<i>xorqin</i>	科爾沁	
	<i>jalaiid/jalaiit*</i>	扎賚特	
	<i>oros</i>	俄羅斯	
	<i>haiilar</i>	海拉爾	

*:  may be transliterated as *jalaiiun*. But **laiiun* is not a possible syllable in Mongolian. As is stated in hints, the four words have different ending letters. As the first word must be *xorqin*, which ends with *n*, this word must end with the syllable-ending *d/t*. Since *d/t* are not identifiable in Mongolian scripts, either transliteration is correct.

Solution:

Mongolian letters:

	Latin transliteration	Position
	<i>a</i>	initial
	<i>o</i>	initial
	<i>ii</i>	initial
	<i>xa</i>	initial
	<i>xo</i>	initial
	<i>xö</i>	initial

ᠪᠤ	<i>bu</i>	initial
ᠨᠠ	<i>na</i>	initial
ᠵᠠ	<i>ja</i>	initial
ᠰᠤ	<i>sö</i>	initial
ᠳᠠᠲᠠ	<i>da/ta</i>	initial
ᠳᠣᠳᠦᠲᠥᠲᠦ	<i>dö/dü/tö/tü</i>	initial
ᠶ	<i>i</i>	middle
ᠶᠡ	<i>ii</i>	middle
ᠣᠪᠣᠭᠤ	<i>o/w/ö/ü</i>	middle
ᠬᠠ	<i>ha</i>	middle
ᠭᠡ	<i>ge</i>	middle
ᠭᠣᠭᠤ	<i>go/gu</i>	middle
ᠪᠡ	<i>be</i>	middle
ᠨᠢ	<i>ni</i>	middle
ᠮᠠᠮᠡ	<i>ma/me</i>	middle
ᠮᠤᠮᠦ	<i>mu/mü</i>	middle
ᠵᠤᠵᠦ	<i>ju/jü</i>	middle
ᠻᠢ	<i>qi</i>	middle
ᠯᠠᠯᠡ	<i>la/le</i>	middle
ᠯᠢ	<i>li</i>	middle
ᠯᠤᠯᠦ	<i>lu/lü</i>	middle
ᠳᠡᠲᠡ	<i>de/te</i>	middle
ᠳᠣᠲᠣ	<i>do/to</i>	middle
ᠷᠣᠷᠤ	<i>ro/ru</i>	middle
ᠷ	<i>-r (syllable- ending)</i>	middle
ᠨ	<i>-n (syllable- ending)</i>	middle
ᠳᠤᠲᠤ	<i>du/tu</i>	final
ᠳᠤᠲᠤ	<i>-d/t (syllable- ending)</i>	final
ᠨ	<i>-n (syllable- ending)</i>	final
ᠷ	<i>-r (syllable- ending)</i>	final
ᠰ	<i>-s (syllable- ending)</i>	final

(The *-un* looks exactly the same as “*-d/t*” in the final.) That’s why the ending letters of “*arun*” and “*dalat*” look exactly the same.

Mongolian word	Syllable-by-syllable transliteration									
ᠠᠷᠨ	<table style="border: none;"> <tr><td>ᠠ</td><td>—</td><td>a</td></tr> <tr><td>ᠷ</td><td>—</td><td>ru</td></tr> <tr><td>ᠨ</td><td>—</td><td>n (syllable-ending)</td></tr> </table>	ᠠ	—	a	ᠷ	—	ru	ᠨ	—	n (syllable-ending)
ᠠ	—	a								
ᠷ	—	ru								
ᠨ	—	n (syllable-ending)								

	da la t (syllable-ending)
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It is easier to start from the head of each word.

1. By looking the topmost part of each Mongolian word, we can see that two groups of words have the same

letter: and , which start with “*bu*”; and , which start with “*xö*”. But it seems that

and end with the same letter, so the former ones must be “*buiir*” and “*bogutu*”. As “*buiir*” has two “*i*”, it is easy to know that 4 is “*buiir*” and 16 is “*bugutu*”. Then from word length we can know that 14 is “*xölin*” and that 5 is “*xöndelen*”.

2. “*Buiir*” shares the same ending letter with “*xoringer*”, so we can know that 1 is “*xoringer*”.

3. Then we look at the start of “*xoringer*”, we can find that 12 is “*xoolin*”, which has the exactly the same starting letter “*ho*” as “*xoringer*”.

4. Now we can deduct the form of letter “*r*” in the middle. is the letter “*r*” in the middle.

By combining the start of “*xoringer*” and the form of letter “*r*” in the middle, it is easy for us to spot “*xaraqin*”, which is 17. If we look at the ending of “*xaraqin*” in detail, we can know that 8 is “*üjümüqin*”, which shares exactly the same ending with “*xaraqin*”.

5. Now we can find out all words that starts with a vowel. As the ending of “*ordos*” is unique, we can know that 6 is “*ordos*”. Then 11 is “*arun*”.

6. By looking at “*ordos*” and “*bugutu*”, we can know that “*d*” and “*t*” () are written in the exactly same form. If we look at the words unsolved, we can find that except for “*sonid*”, “*jarud*” and “*naiiman*”, four of the words start with “*d*” or “*t*”. We’ve already known the form of “*r*”, so 2 must be “*jarud*”. “*Buiir*” has two “*i*” and so is “*naiiman*”, so 7 must be “*naiiman*”. Then “3” must be “*sonid*”, as it has a unique starting letter.

7. Now, all of the words left have the same starting letter. By looking at “*sonid*” and “*jarud*”, we can know the form of the syllable-ending “*d/t*”, which should be , so we can know that 9 is “*dörbed*” and that 10 is “*darhan*”.

8. The two words left unsolved are “*dalat*” and “*tümed*”. One way to distinguish them is to learn the form of letter “*l*” and letter “*m*”. From “*xoolin*”, “*xölin*” and “*xöndelen*”, we can know the form of “*l*” in the middle, which should be and “*m*” is . So 13 is “*tümed*” and 15 is “*dalat*”.

Problem 6 (20 points). Skolt Sami answer $1.5 \times 10 + (Q4)5 = 20$

Answers

1. I stepped on salt.
2. A bird found a treasure with lizards.
3. A lizard steps on the tables.
4. I step on the boys.
5. lǻdd sää́lt pârgg
6. pãárd kaúnnem čõṍlmin
7. smä́tt loóddid taanci
8. låá́dd kaaunam smaáttin
9. šõṍldid nórddem
10. âá́lj smää́tt nárdde poórdin

Skolt Sami

- A member of Uralic language family
- Vowel alternation (high(*H*) - low(*L*)):
 - a - ä õ - â o - ă
- Consonant Alternation (strong(*S*) - weak(*W*)):
 - Long cluster (*xyy*) - Short cluster (*xy*)
 - Geminated (*xx*) - Single consonant (*x*) (a verb in this prob)
 - Geminated (*xx*) - Geminated (*xx*) (two nouns in this prob)
 - A vowel is long before a weak consonant

Inflectional Morphology

- Noun Inflection:

	NOM	ACC	with
singular	<i>low-strong-∅</i>	<i>low-weak-∅</i>	<i>high-weak-in</i>
plural	<i>low-weak-∅</i>	<i>high-weak-id</i>	<i>high-weak-ivui'm</i>

- Verb Inflection: Infinitive: -âd

	1sg	3sg	1pl	3pl
present	<i>H-W-am</i>	<i>L-S-∅</i>	<i>H-S-âp</i>	<i>L'-S-e</i>
past	<i>H'-S-em</i>	<i>H-W-i</i>	(not used)	<i>H'-S-e</i>