UKLO Round 1 2014 Solutions: Advanced level

5. Turkish (15 marks, 23 points)

Assigning points:

- 5.1: 2 points per sentence, 1 if one word is wrong. (total 10)
- 5.2: 1 point for the underlined part, 1 for the rest of the sentence, 1 for 'although' in f. (total 6+6+1 = 13)

5.1. a.	Is your father happy? [or: Your father is happy?]
b.	We say/said “come to our city”. [or: "Come to our city" we say/said.]
c.	My friend wants to be/become a doctor.
d.	Do they like my poor house? [or: They like my poor house? or: Do the poor like my house?]
e.	Are you coming [or: Do you come] from Istanbul? [or: You come/are coming from Istanbul?]
5.2. a.	When I come/came they say/said “hello”. [or: ... "hello" they say/said.]
b.	Is/was your father happy that we came/come/are coming? [or: Does/did your father like us to come?]
c.	They say/said (that) you are poor.
d.	Is the house that/which you bought/are buying big?
e.	The/a city where I am/ was happiest is/was Van. [or: Van is/was the/a city where I am/was happiest]
f.	Although we are/were poor, we are/were happy.

Comment

The examples in part 1 provide vocabulary and show some basic sentence patterns for Turkish, e.g. the verb usually comes at the end of the sentence, and nouns take endings which show possession (e.g. -im/-um means “my”) and case (e.g. -den/-dan means “from”, -u/i shows a definite object). The sentences in part 2 are similar to those in part 1, requiring the pupil to analyse new forms using the same rules as in part 1. The sentences in part 3 use a gerund-type affix (-diğ-/-duğ-, similar to English “-ing”) so that verbs can take the same suffixes used in parts 1 and 2, but with a metaphorical meaning. The sentences in part 3 translate literally as:
a. At my coming they say “hello”.
b. Is your father happy from our coming?
c. They state your being poor.
d. Is your buying house big?
e. My happiest-being city is Van.

f. uses a linking word (halde) which isn't in the preceding parts; solving this one requires the pupil to guess from the preceding examples and from the context of the sentence that the meaning is something like "In spite of our being poor, we're happy".

6. Kairak (15 marks, 41 points)

Assigning points:

- 6.1,2: 2 points for each completely correct answer; 1 point for almost correct answers with just one error. (total 32)
    - Give benefit of the doubt if IPA symbols are unclear (e.g. ɐ or e?)
- 6.3: 3 points for a completely correct answer; no partial credit (total 9)

6.1. a.	ŋa siqut
b.	anit ŋes
c.	ut monɐk
d.	ŋɐri vɛlɐŋ
e.	ɲi mɐnatɐm
f.	ka mɐn
g.	ŋɐni ron
h.	ya dudɐbɐt
6.2. a.	'they meet' [or: They are meeting]
b.	'the two of you/them [or: you/they both] will show (it)' [or: .... (dual) ...]
c.	'they raised/rose[!] (it)' [or: they pulled (it) up; or: ... have pulled/raised ...]
d.	'you (pl) spoke out' [or: you all spoke out] [or: .... (plural)]
e.	'They cooked' [or: ... have cooked]
f.	'the two of us [or: we both] go inside' [or: .... (dual) ...; or: ... are going ...]
g.	'you (sing) will come' [or equivalent; not: You will come]
h.	'we (all) set fire to a bush' [or: We (all) set a bush on fire; not: We both ...; or: ... (past), not: ... (present) or: ... are setting fire ...]
6.3. a.	tsal
b.	ka mu
c.	the two of you/them will feel [or: you/they will both feel. or: you/they both will feel]

Comments

In order to solve the questions, you first need to figure out the general pattern that distinguishes the present, future, and past tenses for each type.

It is always a good strategy to tackle the easiest bits first. Type 3 forms are the most straightforward: the pronouns (*I, you, he*, etc) stay the same, but the initial sound in the verb changes according to tense (*t/r/m* for present/future/past, respectively). With Type 2 forms, the present and future tenses are identical to each other. Only the past tense is distinguished by the form of its pronouns. (Many languages make only a dual tense distinction, such as between past and non-past, or between future and non-future. However, other information in the text usually provides clues as to when in time an event is occurring.)

Type 1 forms are the trickiest because they use a combination of changes to both the pronoun and the verb to distinguish tenses. In present tense, the verb has an initial *t* sound that drops off in non-present tenses. So when you see a verb form like *sup*, without a *t* attached to the preceding pronoun, you know that it can't be in the present tense. (Don't let the *t* at the end of present tense pronouns fool you into thinking it "belongs to" the pronoun. The *t* is really a part of the verb. But for ease of pronunciation, it attaches to the end of the pronoun.) While the verb distinguishes present from non-present tenses, the pronoun distinguishes the past from the non-past (just like with Type 2 forms). Note, though, that there is no distinction across 3pl non-human or 2pl pronouns.

7. Ilokano (20 marks, 24 points)

Assigning points:

- 7.1 - 3 points each (with one mistake: 1 point) (total 9)
- 7.2 - 5 points each (with one mistake: 3 points; with two mistakes: 1 point). Mistake = one morpheme wrong or missing (total 15)

7.1. a.	you (pl.) read it [or: you read it; not: ... were reading ...]
b.	we (with you) were sweeping it [or: ... it with you; not: ... swept ...; not: ... sweeping.]
c.	we (with them) were calling [or: ... calling with them; not: ... called ...]
7.2. a.	tinaktakawda ida [= t(in)ak+takaw+da ida]
b.	linabaanmi [= l(in)aba+an+mi]
c.	pimmunakayo [= p(imm)una+kayo]

Comments (two alternative analyses, which we hope to reduce shortly!)

Analysis A

Ilokano verb forms are divided into three groups:

- intransitive (with no direct object): *-imm-* is added in the root, after the first consonant. The subject is denoted by *-ta* ('we (with you)'), *-kami* ('we (with them)'), *-kayo* ('you (pl.)) or *-da* ('they);
- transitive (with a direct object), translated with past simple: *-in-*, is added at the same place in the root. Verbs with "sanitary" semantics (cleaning, washing, etc) get the *–an* suffix, the subject is denoted with *-ta* ('we (with you)'), *-mi* ('we (with them)) , *-yo* ('you (pl.)') or *-da* ('they'), 3rd person singular of the object is implied, and 3rd person plural is denoted by *ida*;
- transitive, translated with past progressive: the same as with the previous group, but before inserting *-in-*, the first consonant-vowel-consonant is duplicated: (e.g. from *gat·ing* 'buy' we get *gat·gat·ing*, and then *g{in}at·gat·ing*).

Analysis B

Ilokano verb forms are divided into four groups by two contrasts:

- transitive versus intransitive (i.e. with/without an object: it/them)
    - a transitive verb means '... it' by default; this chages to '... them' if *ida* is added.
    - intransitive verbs have a 'progressive' meaning (translated by 'were Ving', e.g. 'they were shopping'), but transitives normally have a non-progressive meaning (e.g. 'you called them'), though they can be made progressive by special morphology (see table).
- ordinary versus 'sanitary' (cleaning, washing, etc).

All verbs:

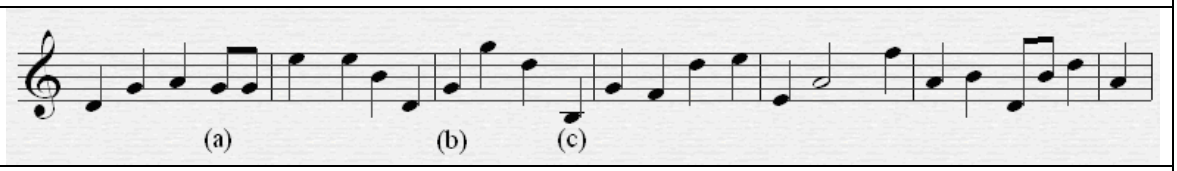
- have a similar structure: <Infix> + Base (+ Suffix1) + Suffix2
    - where <Infix> is located after the first consonant of Root.
    - Suffix1 is normally absent.
- have a basic root which is usually the same as the Base (so Base = Root), but may have its first syllable (consonant+vowel+consonant) duplicated (so Base = Root*2).
- indicate their subject in Suffix2: *ta* = we (with you), *mi* = we (with them), *yo* = you (pl), *da* = they.

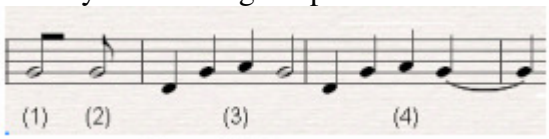
<table>
<tr><td></td><td colspan="2">transitive</td><td colspan="2">intransitive</td></tr>
<tr><td>ordinary</td><td>Infix = in</td><td></td><td rowspan="2">Infix = imm</td><td></td></tr>
<tr><td>sanitary</td><td>Base = Root*2 (for progressive meaning)</td><td>Suffix1 = an</td><td>Suffix1 = ka</td></tr>
</table>

- Musical code (20 marks, 70 points)

Assigning points:

- 8.1: 5 points for a perfect answer, deduct 1 per error up to 5. (max 5)
- 8.2: Add 1 point for each correct accidental, deduct one for every wrong one. (max 18, min 0)
- 8.3: 2 points for the idea, 1 extra for an example. (max 3)
- 8.4a: Add 1 for each correct note, deduct 1 for each error. Ignore accidentals and bar-lines. (25 max, 0 min)
- 8.4b. 4 for describing each problem, 1 for each solution or explanation of insolubility. (15 max)
- 8.5. 2 for mentioning or describing ambiguity not resolved by context plus 2 for a plausible example. (4 max)

8.1.	attention WE ARE RUNNING SHORT OF SUPPLIES. WE ATTACK TOMORROW AT EIGHT.
8.2.	
8.3.	Sequences are coded as quavers when they represent di- or trigraphs, i.e. sequences of letters representing a single sound: TI, RE, NG, SH, OR, IE, CK, OW, GHT. [Accept without OR since some speakers pronounce the /r/. Accept alternative terminology for 'di/tri-graph' if its intention is clear, e.g. 'compound sound' or 'two letters that make one sound' or 'they produce a single sound' or 'the letters are supposed to be pronounced together'.]
8.4a.	
	[Accept minim at (a) instead of double quaver. See the summary of the code below.]

8.4b.	Difficulties are: At (a) EE in NEED is a double letter, but is also a digraph. One solution is to ignore the fact that it is a double letter as above. Other solutions, especially from non-musical people, might involve trying to draw a white note with a bar (1) or a tail (2). Non-musical students might also choose to represent it as a double letter, ignoring the fact that it is a digraph. This might lead to (3), or (4) for students who know musical notation but choose this option. All solutions are OK, as the marks are primarily for noticing the problem.  (b) The word FIVE contains a discontinuous digraph I-E.  There was something similar in the first message with the word ARE, which showed RE as a digraph, but in this case there is a stronger connection between the I and E of FIVE. There is no obvious solution to this within musical notation. Non-musical students may suggest something like this (left). Again, the marks are for noting the problem rather than its solution. (c) The message requires us to represent X, which was not in the original message, and which is beyond the "system" of consonants in spaces starting with the space above the top line for BCD and ending with the space below the bottom line for TVW. Musical students will know about ledger lines, and probably offer the solution shown above. Some might suggest a double sharp, the symbol for which coincidentally looks like a small x. Marks can be awarded for any solution, including "There is no way to show an X". [Don't accept general answers such as 'I couldn't understand the code'. The question asks for three specific problems and requires a deep understanding of the code.]
8.5.	It is OK to omit accidentals because the context usually allows you to tell which of the three possible letters is intended. They might be necessary where the context is insufficient, for example a short message, or one containing an ambiguous word (e.g. CABBIE vs CADDIE, HUFFER vs HUGGER, DIMMER vs DINNER vs DIPPER) particularly if it's a name (e.g. LIBBY vs LIDDY, LEMMON vs LENNON). [Accept any answer so long as it mentions limited options, ambiguity/uncertainty and context in some way.]

Comments

As background to the details given above, here's a brief summary of how the code works:

- Vowels are on the lines, going up: a on the bottom line, u on the top line.
- Consonants are assigned, three at a time, to the spaces, going down: bcd on the very top space, above the top line, fgh on the space between the top two lines, and so on.
- When necessary, accidentals distinguish the consonants, with flat for the (alphabetically) first and sharp for the third.
- Minims show a double letter, e.g. tt
- Quavers (which are always linked) show a di- or tri-graph.

8. Lontara (25 marks, 26 points)

Assigning points:
9.1 One point for each correct letter. (10 points subtotal)
9.2 Two points for each correct Buginese word; no partial credit. (6 points subtotal)
9.3: Two points for each correct Buginese script. Allow one point if the student misses one character or is otherwise very close but not perfect. Be generous in comparing competitors' scripts with the model. (10 points subtotal)

9.1. 1: B	2: E	3: D	4: I	5: H
6: A	7: C	8: J	9: G	10: F
9.2.	a. puang		b. pérétiwi [or: pérétiwié]	
	c. atawareng			
9.3. a.				
b.				
c.				
d.				
e.				

Comment
Hints
Hint 1: The phrase mattampa puang lé ri batara is repeated twice in the scrambled Latin-alphabet Buginese text. Can you find a series of characters that is repeated twice in the Lontara-script Buginese text? Use this as a foothold for discovering what some symbols mean, and learning more symbols.
Hint 2: Try thinking of the symbols as syllables instead of letters... For more, see Appendix

UKLO 2014 Round 1 Notes - appendix

Question 2. Maori

2.1. Many of the Maori words "sound" like English words, for example "hama" sounds exactly as it is pronounced in British & New Zealand English (without a final r-sound). Maori does not appear to use "l", and many languages such as Chinese and Japanese make no distinction between "l" and "r", so Maori will turn words with an "l" in English into words with "r" instead (as in "terewhono" for telephone). In the case of "terewhono" there appears to be no "f" in Maori, but "wh" suggests a kind of breathy w-sound , which could be an equivalent for the friction of an f-sound.
Looking at the Maori words, there are no consonants ever used together, so English loan words with consonant clusters are reduced to a single consonant, as in "wana" for "swan". The Maori words also all end in a vowel sound, which strengthens the hypothesis that Maori does not do consonant clusters / end words in a consonant sound. To avoid consonant clusters, vowels may be added, these vowels will be similar to the ones already there, so "ink" becomes "iniki".The "ch"- sound is also a bit like a consonant cluster (sounding like a blend between t and s) and so "cheese" becomes "tīhi" , highlighting that "s" in English words, takes on the shape of "h" in Maori (also a friction sound).
Finally, there is no "b" in Maori. But "p" and "b" are effectively the same sound, the only difference being the use of vocal cords in producing the "b" sound – so it is safe to assume that Maori will substitute English "b" with a "p" instead as in "putu" for "boot".
2.2. Having worked out the patterns in 2.1, you can see that " hekeretari" is very similar to secretary, especially as we know we are looking for professions. Following the rule that consonants must be separated by vowels and that "h" is substituting for a sharp s-sound, we can see that b is "princess", and substituting the "r" in "pirihimana" for "l" , and the "hi" for a shar "s-sound" and dropping the final vowel gives something that is very close to the English "policeman". As in 2.1 we saw that "jar" is "tiā", so "tiati" gives us "judge" (the j and dg represent the same sound).
2.3. a. Following the same thinking as before gives us "Israel".
b. Likewise for "Cuba".
c. Likewise for Spain (like "Swan" in 2.1 the initial s is dropped in the consonant cluster).
d. As in "tiati"/"judge" (in 2.2) Tiamani starts with the same sound, so it must be Germany.
e. And as before, the same sound is used represented here, so the country must be "Japan" (as the sound of both the initial consonants is the same, despite English using the G or J to represent it).
2.4. Having worked out the "rules" in the previous questions, we can work out how these English words would appear in Maori:
a. beef – b =p / ee = ī / f = wh and a final vowel the same as the other vowel, gives us "pīwhi".
b. bull – b = p / u = ū / ll =l = r followed by a vowel of the same quality as the other vowel in the word gives us "pūru".
c. cart – c = k / and bearing in mind that the r is not really pronounced in New Zealand, gives us "kata".

d. clock – c = k, l=r, remembering to put a vowel between the two initial consonants, ck = k and a final vowel. The o-cound in clock is represented by an “a” in Maori (see “swan”).
e. lease – l = r, ea = long ī sound, sharp s = hi.
f. meat – m = m, ea = ī, and ti instead of jsta a t.
g. seal – s = h, ea = long ī sound, l – r plus a vowel added.
h. street – drop the initial s, put a vowel between the t and r, ee = long ī, and adding a vowel at the end that’s similar to the vowels in the rest of the word –i.
i. time – t = t, i = ai and adding a vowel at the end after the m.
j. watch – w = w, a = a, t = t , but the sound represented by English –ch is not used in Maori (see match in 2.1.).

Question 3. Mokilese

4.1. a. All the phrases that refer to 3 have the component “jil”
b. All the phrases that refer to 4 have the component “pah”.
c. All the phrases that refer to 5 have the component “lim”.
All these components are numbers.
4.2. All the words referring to living animals (dog, man, child, turtle) have the component “men” in them, so this must refer to living animal; all the words referring to flat objects (bread, blocks of land) have “kij”, which must refer to flat inanimate objects. On closer inspection both the bread and land are smaller parcels (slices and blocks respectively) of larger things, so we might also guess that the noun classifier “kij” refers to flat inanimate objects that can be divided into smaller parts; but we have no evidence that that divisibility is crucial. Finally, the remaining words chopsticks , trees and reeds all have the component “pas”, which must refer to objects that are round / cylinder-like in shape (tree-trunks, reeds, and chopsticks all have this basic shape); once again, we might guess that these things must be inanimate, but we have no evidence.
All these components are classifiers.
4.3. Looking at how the phrases are made up in Mokilese, e.g. “doahk jilmen”, we see that the noun “doahk” comes first in the row describing “dogs”, this is followed by the number e.g. “jil” and this is followed by the classifier, e.g. “men”.

Q4. Running Speech:

There are two challenges in this set of data: firstly, to identify some unfamiliar symbols, and secondly, to work out how some of the sounds are changing in particular contexts.

On the first, many of the symbols will be the same as the letters we use in normal spelling:
it is not unreasonable to guess that, for example, the symbol **k** corresponds to the letter *k*. It will of course be used whenever this sound occurs, whether it is spelt with a letter *k* or another letter, such as *c*: so *cake* is pronounced [keɪk].

There are, however, a number of unfamiliar symbols: for example, **ŋ**, which denotes a sound similar to **n** but produced with the back of the tongue against the soft palate. It is the consonant which is produced before the [k] in *think*: compare it to the [n] at the end of the word *thin*.

There are a number of symbols used in the data which involve diacritics below the main symbol. So the small 'bridge' under **d** in number 3 (**d̪**) indicates the sound is a dental sound: it is produced with the tongue touching the back of the teeth, which is a little further forward than it is normally produced.

We could add more symbols to give a more detailed description of the pronounciation, but the symbols are kept to a minimum here.

The second aspect to the question is to work out the changes which occur to some of the words. The changes focussed on in this data are examples of the assimilation of the place of articulation: the exact position of the tongue in the mouth when producing a sound. They affect a [t] [d] or [n], and occur when these consonants are at the end of a word in anticipation of the following sound.

So the word *would* is pronounced with a final [d] in, for example, utterance 6; but this might change to a [g] if the following word begins either with a [g] (as in utterance 2: *would go*), or with a [k] (as in 11 *would come*). They have changed from an alveolar place of articulation (where the tongue touches the ridge behind the teeth) to a velar place of articulation (where the tongue touches the soft palate further back in the mouth). Or a [d] might change to a [b] before an [m], for example (as in *good morning* in utterance 4), or to a [d̪] before [θ] (*would think* in 3).

This affects sequences of these consonants also. So in number 9 the [nt] sequence at the end of *can't* has changed to a [ŋk] sequence because of the [g] at the start of *go*.

Students are not asked for an explanation but they might start to see a pattern. This will help in identifying the more difficult forms in 4.4 and identifying the utterances in 4.5.

These are more difficult because they involve other changes which happen in running speech. One of these is the frequent omission of a consonant in a sequence of consonants. So in 18 the [t] of *mints* is omitted, and in 15 the [t] in *can't think* has been omitted. This doesn't have to happen: so in 9 (*can't go*) it is still there, although it shows up as a [k].

Another change that often happens is that a vowel may be omitted. So in the utterance 19 (*bread and toast*), the vowel of the word *and* has been omitted (as well as the [d]). In such cases, a sequence of consonants is formed, and both may assimilate their place of articulation to a following consonant, as in question 4.5.a: *bread and butter* [brebm̩bʌtə]. (Assimilation in consonant sequences including a nasal can be different in other contexts, but this is not explored in the current set of data)

It is very important to remember when considering all these examples that there is a lot of variation in speech. So these changes may occur on one occasion and may not on another.
But they are much more common than often thought, since both speakers and listeners are usually unaware that they are making these changes. They happen a lot in fairly formal speaking contexts as well as conversational speech. They are rule-governed, as described above: they apply to particular sounds in particular contexts: they are not just random changes.

Normal orthographic versions of the utterances:

1.	[hiseggʊdiːvnɪŋtuːmi]	He said "Good evening" to me.
2.	[aɪwʊggəʊ]	I would go.
3.	[aɪwʊd̪θɪŋksəʊ]	I would think so.
4.	[ɪtwəzəgʊbmɔːnɪŋtəgəʊ]	It was a good morning to go.
5.	[aɪsɔːwʌmbaɪk]	I saw one bike.
6.	[aɪwʊdəvθɔːtsəʊ]	I would have thought so.
7.	[aɪwʊdɳtel]	I wouldn't tell.
8.	[aɪlʌvkeɪkəmbɹed]	I love cake and bread.
9.	[aɪkɑːŋkgəʊ]	I can't go.
10.	[ɔːlgʊd̪θɪŋzkʌmtuənend]	All good things come to an end.
11.	[ɪtwʊgkʌmtuənend]	It would come to an end.
12.	[hihədwʌn̪θɔːtəʊnli]	He had one thought only.
13.	[aɪpʊt̪ðəbɹedɪn̪ðəbɹebbɪn]	I put the bread in the breadbin.
14.	[hisɔːwʌŋkɑːðeə]	He saw one car there.
15.	[aɪkɑːn̪θɪŋkwaɪ]	I can't think why.
16.	[ðəsekəndaɪsɔːðəmðeə]	The second I saw them there….

17. [aɪkɑːmbaɪkeɪkðeə] I can’t buy cake there.

18. [aɪlʌvmɪŋkkeɪkəndekstɹəstɹɒŋmɪns] I love mint cake and extra strong mints.

19. [aɪlʌvbɹedɳtəʊst] I love bread and toast.

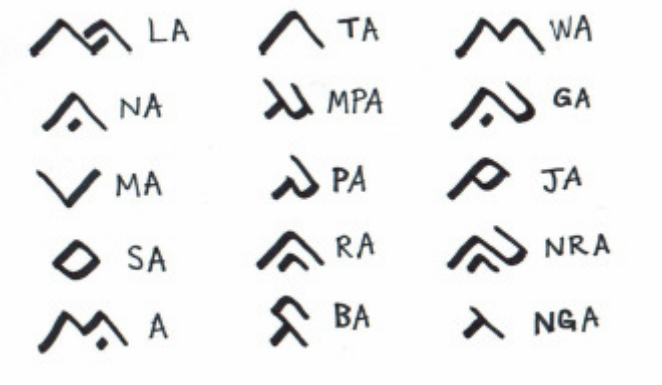
20. [hisɔːðəsekəmbaɪk] He saw the second bike.

Q9 Comments on Lontara

Hints
Hint 1: The phrase mattampa puang lé ri batara is repeated twice in the scrambled Latin-alphabet Buginese text. Can you find a series of characters that is repeated twice in the Lontara-script Buginese text? Use this as a foothold for discovering what some symbols mean, and learning more symbols.
Hint 2: Try thinking of the symbols as syllables instead of letters.
The Lontara script
Each symbol is a single syllable. Lontara is an abugida: the larger, core part of each symbol represents the initial consonant or consonants, while any smaller, accentuating mark represents the vowel.

When there is no vowel mark, the syllable defaults to the vowel "A". When a vowel mark is present, the "A" changes to the corresponding vowel. This is similar to Devanagari, another abugida.

Here are more consonants of the Lontara script, in the order they appear in the Buginese text.



For fun, here are some consonants which were not used in the problem.

Although some of the Buginese syllables have final consonants, Lontara does not have a way to write down the final consonants. So the -ng and -q at the end of many of the Buginese words have no representation in the Lontara script: they are ignored.

Doubled consonants, as in mattampa, are also ignored and just treated as single consonants (matampa). Lastly, spaces are ignored.

A single punctuation mark (at right) is used to represent both the comma and the period. 

Reference for the Lontaran script: http://en.wikipedia.org/wiki/Lontara_alphabet

The unscrambled poem

Lé namasuaq mua na sia	There is no one
mattampa Puang lé ri batara,	to call the gods Lord,
mappaleq wali ri Pérétiwi.	or to offer praise to the Underworld.
Tammaga Puang muloq séua rijajiammu,	Why Lord don't you have one of your children descend,
tabareq-bareq ri atawareng,	and incarnate him on the earth,
ajaq naonro lobbang linoé	do not leave the world empty and
makkatajangeng ri atawareng.	the earth uninhabited.
Teddéwata iq, Puang, rékkua masuaq tau	You are not a god, Lord, if there are no humans
ri awa langiq, lé ri ménéqna Pérétiwié,	under the heavens, above the Underworld,
mattampa Puang lé ri batara.	to call the gods Lord.

The Buginese text and translation were taken from a paper by Sirtjo Koolhof about the epic poem: http://www.sabrizain.org/malayaS/library/lagaligo.pdf