



# AILO

All Ireland Linguistics Olympiad  
*The Problem Solvers' Challenge*

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## National Final 2023

Wednesday, 1st March 2023, 10.00-12.30

Dublin City University

Answer as many of the  
questions as you can.  
Write your answers in the  
answer-book provided.



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## Question A: Tidore word formation

Pyotr Arkdyev

Study the following words, and the verbs derived from them. All letters are pronounced as in English.

|             |                   |               |                |
|-------------|-------------------|---------------|----------------|
| <i>kene</i> | small             | <i>sokene</i> | to reduce      |
| <i>gure</i> | a place, location | <i>sogure</i> | to put         |
| <i>chum</i> | to indicate       | <i>sojum</i>  | to explain     |
| <i>dadi</i> | to become         | <i>sodadi</i> | to do          |
| <i>peka</i> | to fall           | <i>sobeka</i> | to drop        |
| <i>ado</i>  | to arrive         | <i>sogado</i> | to deliver     |
| <i>koko</i> | to stand (up)     | <i>sogoko</i> | to set upright |
| <i>tolu</i> | a hat             | <i>sotolu</i> | to cover       |

**A1.** The following words are derived by the same process. Fill in the blanks in the table. If there is more than one possible Tidore word, give them all (each with its translation). Where you are asked to provide an English translation, try to choose a word or phrase that makes the meaning clear.

|               |              |               |            |
|---------------|--------------|---------------|------------|
| <i>alo</i>    | (a)          | <i>soalo</i>  | to cool    |
| <i>uchi</i>   | to go down   | (b)           | to lower   |
| <i>koliho</i> | to come back | (c)           | (d)        |
| <i>akal</i>   | cunning      | (e)           | to outwit  |
| <i>torine</i> | to sit down  | (f)           | to seat    |
| <i>kai</i>    | wedding      | (g)           | to marry   |
| (h)           | (i)          | <i>sobaka</i> | to lift up |
| (j)           | a step       | <i>sojoko</i> | to advance |

**A2.** Explain the word formation rules as seen here.

Tidore is a North Halmahera language of Indonesia, spoken by about 30,000 people. The language is centred on the island of the same name, but it is also spoken in some neighbouring areas.

Source: 52nd (Russian) Traditional Linguistics Olympiad 2021/22, qualifier stage.

Translated by Harold Somers.

## Question B: Sogdian script

Michael Salter

The ancient kingdom of Sogdiana, centred on the fabled city Samarkand, was a major trading centre on the Silk Road that linked China with the Middle East and Europe beyond. As a result of this, the Sogdian language became an important *lingua franca* (common language) in the region, and a good deal of writing in Sogdian survives. One of the main scripts used to write Sogdian was the Manichean script, which was derived from ancient Aramaic.

On the next page are some words in the Manichean Sogdian script, with their English transliterations. Note, the Manichean Sogdian script was not always 'precise', in that (just like English) sometimes the same symbol was used to indicate two different sounds, and sometimes the *same* sound could be represented by two different symbols.

## Pronunciation guide:

A macron mark (̄) over a vowel indicates a long vowel

ə is the unstressed “schwa” vowel as in English ‘alone’)

č is ‘ch’ as in ‘church’ (IPA [tʃ])

š is ‘sh’ as in ‘shin’ (IPA [ʃ])

ž is the voiced equivalent of š as in ‘Asia’ (IPA [ʒ]).

θ is the ‘th’ sound in ‘thin’ (IPA [θ])

ð is the voiced equivalent of θ, the ‘th’ sound in ‘this’ (IPA [ð])

ɣ is a voiced velar fricative found in Dutch ‘g’ or Irish ‘dh’ or ‘gh’ in some words (IPA [ɣ])

| Transliteration   | Sogdian  |
|-------------------|--|
| <i>yāxēt</i>      |    |
| <i>pətəri</i>     |    |
| <i>δēwət</i>      |    |
| <i>šukča</i>      |    |
| <i>nōšč</i>       |    |
| <i>martīt</i>     |   |
| <i>wītərənd</i>   |  |
| <i>əstəkānjəl</i> |  |
| <i>šəwēm-kān</i>  |  |
| <i>suyðikt</i>    |  |
| <i>anyōn</i>      |  |

**B1.** Give the Manichean script version of these Sogdian words. In one case, two versions are possible.

(a) wēḍpātī

(b) nəyōšākt

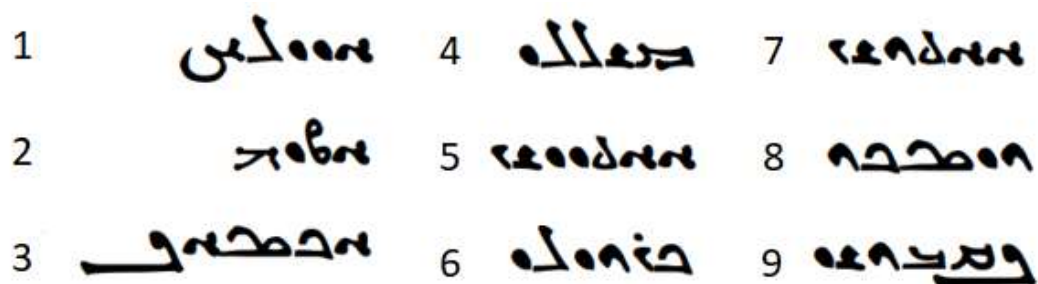
(c) əšya

**B2.** Below are three more Sogdian words in English transliteration, followed by nine words in the Manichean Sogdian script. *Three* of these nine words match the three English transliterations. Which ones?

(a) āžōnd

(b) kambōnī

(c) kanθi



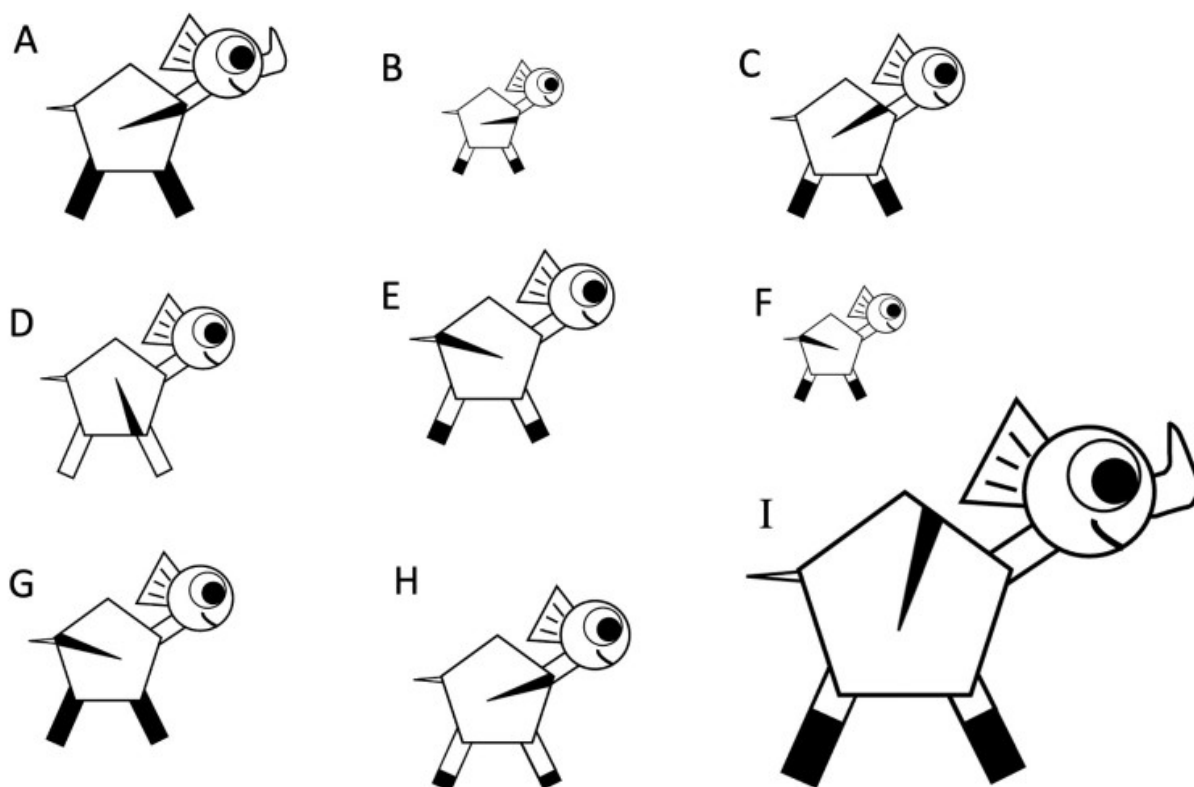
**B3.** Using the information from B2, give the Manichean script version of the following Sogdian words:

(a) *tambār*    (b) *xēpəθ*.

### Question C: **Vloxes**

Tom McCoy

Exciting news: you've got clearance to visit Mars! Your job there is to take care of some Martian animals called vloxes. Here are the nine vloxes that you will be in charge of:



Your commander asks you to identify which vloxes fit the following descriptions:

- |                            |                             |                           |
|----------------------------|-----------------------------|---------------------------|
| (1) The two mellivu vloxes | (2) The two azeltorf vloxes | (3) The three ravv vloxes |
| (4) The two mellovu vloxes | (5) The qliqli vlox         | (6) The kibbish-zuff vlox |
| (7) The two kibb vloxes    | (8) The imxo vlox           | (9) The zuffish-kibb vlox |

Unfortunately, many of these words are unfamiliar to you, and you don't have a dictionary! Luckily, you do have an encyclopedia article (below) that uses these words. Even though the article doesn't define the words directly, you can figure out a lot about each word based on how it is used in context.

**C1.** Based on what you can infer from the encyclopedia article, fill in the letter(s) of the vlox(es) that fit(s) each description from your commander. You will need to use some letters more than once.

**C2.** How would you describe the youngest vlox in the picture? Use two of the following words to complete the phrase (a)-ish (b).

zuff      kibb      tezz      womm      ravv

## Vlox

*From Marsipedia, the Martian encyclopedia*

The vlox (*Vloxis vloxia*) is the most imxo species of zoobleporf. Due to its playful disposition, it is a popular pet throughout Mars.

### Contents

- 1 Appearance
- 2 In popular culture

### Appearance

Vloxes occur in two breeds: the polar vlox and the valley vlox. Polar vloxes are usually more mellivu than valley vloxes.<sup>[1]</sup> Regardless of breed, all vloxes are born completely qliqli. As they mature, they become less and less qliqli. It is believed that all prehistoric vloxes were zuffish-kibb or tezzish-kibb, but modern vloxes display great variety in zlorvitude.

### In popular culture

- In the "Olympus Mons Explorers" comics, Captain Dfdgb's spaceship is called *The Mellovu Vlox*.
- The first Martian prime minister, Jzirla Jzirlsdaughter, was often seen with her kibbish-zuff vlox named Klgrdm.
- In the sitcom "Phobos and Deimos", the main character Phobos has three imxo vloxes: a kibb vlox named Blorblim, a zuffish-ravv vlox named Qqqq, and a ravvish-womm vlox named Robert.
- The most popular song by the Bellona Quartet is "Lookin' Like a Nearly Azeltorf Vlox," which spent seven weeks at the #1 position on the Mercury Top 60 chart.

### Notes

<sup>1</sup> In a previous edition of this encyclopedia, we said that polar vloxes are more mellovu than valley vloxes. This was a typo - obviously, it makes no sense to say "more mellovu"!

## Question D: Shapes and colours

Simi Hellstein

Ideophones are a type of word found in some languages that, as well as having a literal meaning, evoke a sensory image. They are like onomatopoeic words, but more systematic. We don't have them in English, although some words do have something of an ideophonic nature. To illustrate, consider *splish*, *splash* and *splosh*, where the consonants indicate something dropping into water, and the vowel indicates the size of the splash. Another example is the way some words beginning with *gl-* indicate something to do with 'light' (*glimmer*, *glow*, *glisten*, *glint*) – but we say it is not systematic because the *gl-* in words like *glad*, *glum*, etc. does not carry this meaning.

Filomeno Mata Totonac is a variety of the Totonac language, another Mesoamerican language, spoken in Veracruz state, Mexico. The table below lists some words of this language along with an indication of their usage.

Pronunciation guide: **š** is the *sh* in *ship* (IPA [ʃ]); **q** is similar to *k* in *milk* but pronounced further back in the mouth; **ʔ** is the glottal stop, the consonant in the middle of *uh-oh*; **ɬ** is the Welsh *ll* in *Llanelli* – a sound similar to **l** but with more "hissing".

| The word...     | could describe things that...            |
|-----------------|--|
| <b>tsitseqe</b> | <i>are black</i>                         |
| <b>smukuku</b>  | <i>are yellow</i>                        |
| <b>škuuta</b>   | <i>are sour or bitter</i>                |
| <b>tšiiki</b>   | <i>smell like burnt hair or feathers</i> |
| <b>peqšpeqš</b> | <i>sound like shelling beans</i>         |
| <b>spuponqo</b> | <i>are blue or purple</i>                |
| <b>šalala</b>   | <i>are full of holes</i>                 |
| <b>muqu</b>     | <i>smell like mildew* or petrol</i>      |
| <b>škayiwʔa</b> | <i>are green</i>                         |
| <b>mukɬ</b>     | <i>are overly flowery</i>                |
| <b>pikspiks</b> | <i>sound like dripping water</i>         |
| <b>skunku</b>   | <i>smell/taste like fish or eggs</i>     |
| <b>ɬqonqo</b>   | <i>smell/taste like beef or mutton</i>   |
| <b>tiɬtiɬ</b>   | <i>sound like grains being poured</i>    |

\* mildew is a kind of foul-smelling mould

| The word...        | could describe things that...           |
|--------------------|---|
| <b>tsiiki</b>      | <i>smell like scented soap</i>          |
| <b>squuta</b>      | <i>are sour or acidic</i>               |
| <b>ɬqonqɬqonqɬ</b> | <i>sound like snoring</i>               |
| <b>hakš</b>        | <i>smell/taste like onion or mildew</i> |
| <b>muks</b>        | <i>smell flowery</i>                    |
| <b>qululu</b>      | <i>are round or spherical</i>           |
| <b>lasasa</b>      | <i>are thin</i>                         |
| <b>ɬmukuku</b>     | <i>are pale yellow</i>                  |
| <b>ɬpuponqo</b>    | <i>are violet</i>                       |
| <b>mululu</b>      | <i>are indented</i>                     |
| <b>spupuku</b>     | <i>are blue-grey</i>                    |
| <b>saqqa</b>       | <i>are white</i>                        |
| <b>haks</b>        | <i>smell/taste like orange peel</i>     |
| <b>loqsloqs</b>    | <i>sound like someone being slapped</i> |

**D1.** Match up the following ideophones (1)-(13) with their meanings (a)-(m):

- |                        |  |
|------------------------|--|
| (1) <b>haqł</b>        | (a) are red                                  |
| (2) <b>kapakapa</b>    | (b) are hot (to the touch)                   |
| (3) <b>łkayiwʔa</b>    | (c) sound like a cow or horse walking        |
| (4) <b>łkunku</b>      | (d) smell like urine                         |
| (5) <b>łtululu</b>     | (e) are warm                                 |
| (6) <b>qapaqapa</b>    | (f) are dark grey                            |
| (7) <b>tištiš</b>      | (g) are light green                          |
| (8) <b>łłitleqe</b>    | (h) smell like burnt beans                   |
| (9) <b>tsiits</b>      | (i) sound like someone splashing in a puddle |
| (10) <b>tsutsoqo</b>   | (j) are thick                                |
| (11) <b>tšeeq</b>      | (k) smell/taste like egg                     |
| (12) <b>tšiitš</b>     | (l) sound like a deer or goat walking        |
| (13) <b>tšikłtšikł</b> | (m) sound like water flowing                 |

**D2.** All except one of the words given in the table (that is, not including the words (1)-(13)) are ideophones. Which is not?

**D3.** What sorts of things could the following words describe?

- (a) **skuuta**   (b) **šquuta**   (c) **tšutšoqo**

**D4.** A speaker of Filomeno Mata Totonac describes a ripe banana using the following ideophones: (a) **pamama**, (b) **šmoqoqo**, and (c) **seqsi**. Which property of the banana does each word describe?

## Question E: K'iche'

Michael Salter

The K'iche' language (also called *Qatzijob'al*) is a Mesoamerican language of the Mayan language family, spoken by approx. 1.6m people in the central highlands of Guatemala. K'iche' is the second most widely-spoken language in the country, after Spanish, and is also the most widely-spoken indigenous American language in Central America. The following are some sentences from K'iche' together with their English translations. Knowing how to pronounce K'iche' is not relevant to solving the problem, but for your information, the ' symbol represents a glottal stop ([ʔ]) like the sound in the middle of 'uh-oh'. Other consonants are pronounced more or less as they would be in Spanish.

- |   |   |
|---|---|
| <i>maj nume's pa le che'</i>              | My cat isn't in the tree.                 |
| <i>sib'alaj nim le b'e</i>                | The road is very big.                     |
| <i>k'o kaqal pa le raqan</i>              | There is a rash on his leg.               |
| <i>na kinloq' ta le je'l me's</i>         | I am not buying the pretty cat.           |
| <i>na xatinwiye'j ta pa le kaq awo'ch</i> | I didn't wait for you in your red house.  |
| <i>xinutzukuj le nimaqan ajtij</i>        | The tall teacher looked for me.           |
| <i>maj rachi'il pa le kitijob'al</i>      | He doesn't have a friend at their school. |
| <i>la k'o utz awa</i>                     | Do you have good food?                    |

|                                    |                                  |
|------------------------------------|----------------------------------|
| <i>xub'an le q'aq' pa le ko'ch</i> | He made the fire in their house. |
| <i>na xatkitijoj taj</i>           | They did not teach you.          |
| <i>maj wa pa le nutijob'al</i>     | There is no food in my school.   |
| <i>kinkitzukuj</i>                 | They are looking for me.         |
| <i>k'o sib'alaj utz awuj</i>       | You have a very good book.       |

**E1.** Translate the following into English. If you think a sentence has two possible meanings, give both meanings.

- (a) *maj me's pa le ro'ch*
- (b) *na kutzukuj ta le kiwuj*
- (c) *sib'alaj nimaqan le awachi'il*
- (d) *la sib'alaj je'l le nuche'*
- (e) *kinb'an le nuwa*

**E2.** Translate into K'iche':

- (a) He has a good teacher.
- (b) He waited for you.
- (c) Is my red book in their tree?
- (d) You didn't teach me in your school.

**E3.** Match the following K'iche' words (a-f) to their English meanings, given here (1-6) in random order:

- |                     |               |
|---------------------|---------------|
| (a) <i>q'aq'al</i>  | (1) lesson    |
| (b) <i>nimbe'</i>   | (2) fever     |
| (c) <i>wa'ib'al</i> | (3) hunter    |
| (d) <i>banob'al</i> | (4) workshop  |
| (e) <i>tijonem</i>  | (5) cafeteria |
| (f) <i>tzukunel</i> | (6) highway   |

**E4.** Explain the rules of K'iche' grammar as seen here.

**END OF PAPER**