Talented students in senior secondary school who enjoy solving puzzles and who have a knack for logic and languages are invited to test their minds against fiendish and fun linguistic problems in the **twenty-fifth Australian Computational and Linguistics Olympiad (OzCLO)** to be held in **March 2022**. Students who have a keen interest in English, languages, maths or computing are a good match for the competition.

OzCLO is an exciting team-based national competition which challenges students to solve puzzles in fascinating real languages. Students work together in teams of four on a range of analytical problems. The top three teams for each region will go through to the National Round. The winners of the National Round are offered the opportunity to represent Australia at the International Linguistics Olympiad (IOL), which will be held in July 25-29. 2022. online offline or in Castletown, Isle of Man.

There is a **training package** available for schools, and lots of information on the OzCLO website: **www.ozclo.org.au.** 

The Australian Computational and Linguistics Olympiad (OzCLO) has been held at universities around Australia since 2008, with over 2000 secondary students competing since then. The competition is coordinated by a team of linguists at several Universities in Australia.

Regional and National Rounds: Regional: 2 March 2022 National: 23 March 2022

Registration, information and contact: www.ozclo.org.au

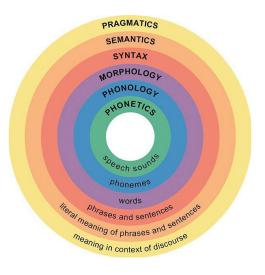
opens 15 January, closes 25 February Registration fee: 10\$ per team member

Students in years 11 and 12 will be eligible to enter the Senior competition, and students in years 9 and 10 will participate in the Junior competition. All registrations will be managed through a teacher contact, students will not be contacted individually.

Do your students enjoy solving problems and cracking codes? Get involved in OzCLO 2022!







THE INTERNATIONAL PHONETIC ALPHABET (2005)

|   | LAI  | IAL.             |                      | CORONAL  |                         |                   | DOM:M.                  |                         | RADICA  |                    | AL LARTS     |      |                   |  |
|---|--|------------------|----------------------|--|-------------------------|-------------------|-------------------------|-------------------------|---|--------------------|--------------|------|-------------------|--|
|   | Bilabial                                       | Labio-<br>dental | Denta                | Alveolar Pala  |                         | Palatal           | Velar                   | Uvular                  | Phar  | yngeal             | Epi-<br>glot | tal  | Glottal           |  |
| Nasal   | m  | ŋ                |                      | n  | η                       | ŋ                 | ŋ                       | N                       |   |                    |              |      |                   |  |
| Plosive   | рb   | φb               |                      | t d  | td                      | C J               | kg                      | qG                      |   |                    | 1            | ł    | 2                 |  |
| Fricative   | φβ   | fv               | θð                   | sz∫  | 3 \$ 2,                 | çj                | хγ                      | Хк                      | ħ   | S                  | н            | ş    | hĥ                |  |
| Approximant   |  | υ                |                      | 1  | 1                       | j                 | щ                       | Б                       |   |                    |              |      |                   |  |
| Trill   | В  |                  |                      | r  |                         |                   |                         | R                       |   |                    |              | Я    |                   |  |
| Tap, Flap   |  | v                |                      | ſ  | r                       |                   |                         |                         |   |                    |              |      |                   |  |
| Lateral<br>ricative   |  |                  |                      | ŧβ   | t                       | ĸ                 | 4.                      |                         |   |                    |              |      |                   |  |
| Lateral<br>approximant  | 1  |                  |                      | 1  | l                       | λ                 | L                       |                         |   |                    |              |      |                   |  |
| Lateral flap  |  |                  |                      | 1  | 1                       |                   |                         |                         |   |                    |              |      |                   |  |
| Apical (pos<br>abrupt ("r<br>Laminal po<br>abrupt ("r<br>Lateral alw<br>fricated (" | etroflex")<br>stalveolar<br>silatal")<br>solar | g ve             | lətəl<br>dər<br>ulər | t' Dental or<br>alveolar<br>k' Velar<br>s' Alveolar<br>fricative | z<br>fj<br>kp ts        | Voiced<br>Simulta | palatalize<br>necus x a | d postalve<br>nd∫ (disp | elveolar (alveolo-palatal) fricativ<br>eolar (alveolo-palatal) fricative<br>puted)<br>ulations may be joined by a tie b |                    |              |      |                   |  |
| /OWELS  |  |                  |                      |  | SUPRASEC                | MENT/             | N.S                     |                         |   | TON                | E            |      |                   |  |
| Front Neu   | r front C                                      | entral 1         | 4ear baci            | Back   | Primary st              | ress              | Extra stro              | ss Le                   | vei tor   | 05                 | Co           | etou | -tone cas         |  |
| lose <b>i</b> V-  | 1 • Y  | i \u-            | • 0                  | u u  | , Secondary<br>C: Long  | -                 | Half-lon                | s é                     | 1   | Fop<br>tigh<br>vid | ěê           | 1    | Rising<br>Falling |  |
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| pen mid   | eto  | е—3 <sup>1</sup> | G-                   |  | INTONATION              | -                 | (no break               |                         |   | lotton             | -            | Ŷ    | High fa           |  |
|   | æ  |                  | 8                    | <u> </u>   | Minor (6                |                   | k                       | TR                      | ne ter  |                    | ē            | ÷.   | Low fal           |  |
| ear open  |  | 1                | 1                    | -a - p   | Major Gr                | tonation          | break                   | t                       | Ups   | ep                 | ĕ            | 4    | Peaking           |  |
| ear open  |  | a • œ-           |                      | ·u• 0  |                         |                   |                         |                         |   |                    |              |      |                   |  |
|   |  |                  | ded & u              |  | / Global ri             |                   | Global fi               | а <b>і</b>              | Dow   | nstep              | ẽ            | Ч    | Dipping           |  |

| STULABICITY & ROLEASES |  | PHONATEON |                               | 7833 | ANRY ARTICULATION   | MCONDARY ARTICULATION |                                |                  |                          |  |
|------------------------|--|-----------|-------------------------------|------|---|-----------------------|--------------------------------|------------------|--------------------------|--|
| ņj                     | Syllabic                                     | ņ¢        | Voiceless or<br>Slack voice   | tb   | Dental  | tw dw                 | Labialized                     | эx               | More rounded             |  |
| ęğ                     | Non-syllabic                                 | şd        | Modal voice or<br>Stiff voice | ţd   | Apical  | t' d'                 | Palatalized                    | ∂ X <sup>w</sup> | Less rounded             |  |
| t <sup>h h</sup> t     | (Pre)aspirated                               | na        | Breathy voice                 | ţd   | Laminal   | t¥ d¥                 | Velarized                      | ẽ ž              | Nasalized                |  |
| dn                     | Nasal release                                | ŋa        | Creaky voice                  | ųţ   | Advanced  | t° d°                 | Pharyngealized                 | F 3              | Rhoticity                |  |
| di                     | Lateral release                              | 0.8       | Strident                      | i t  | Retracted   | tz                    | Velarized or<br>pharyngealized | ęo               | Advanced<br>tongue root  |  |
| ť                      | No audible<br>release                        | nd        | Linguelabial                  | äï   | Centralized   | นั่น                  | Mid-<br>centralized            | ęọ               | Retracted<br>tongue root |  |
| ęβ                     | Lowered ( $\beta$ is a bilabial approximant) |           |                               | é i  | Raised (I is a voiced alveolar non-sibilant fricative, T a fricative trill) |                       |                                |                  |                          |  |

## Try out this sample puzzle!

Kannada is one of the major languages of India, spoken by more than 25 million people primarily in the south of the country, near Bangalore. It is a very old language and it uses its own writing system. In this puzzle, the Kannada letters are transcribed using the Roman alphabet. The letters L, D, T, and N represent a special pronunciation of those sounds with the tongue curled upward. **Hint:** There is no translation for "the" in Kannada.

mane 'house' peeTe 'market' tande 'dad' roTTi 'flat bread' chaTNi 'chutney' hakki 'bird' taayi 'mother' jooLa 'corn' pustaka 'book' simha 'lion' kalkatta 'Calcutta' manushya 'man' amma 'mum' huDuga 'boy' sneehita 'friend'

manege 'to (the) house' peeTege 'to (the) market' tandege 'to dad' roTTige 'to (the) flat bread' chaTNige 'to (the) chutney' hakkige 'to (the) chutney' hakkige 'to (the) bird' taayige 'to mother' jooLakke 'to (the) bird' taayige 'to mother' jooLakke 'to (the) corn' pustakakke 'to (the) corn' pustakakke 'to (the) book' simhakke 'to (the) lion' kalkattakke 'to Calcutta' manushyanige 'to (the) man' ammanige 'to mum' huDuganige 'to (the) boy' sneehitanige 'to (the) friend' (a) Which parts of the words in the second column correspond to the English word 'to'?

(b) Now, here are some new words in Kannada:

hamsa 'swan'

akka 'older sister'

tangi 'younger sister'

How would you say:

'to (the) younger sister'

Problem by Mirjam Fried. Copyright 1999-2007. Department of Linguistics,

University of Oregon

OzCLO Australian Computational and Linguistics Olympiad

If you enjoyed this puzzle, talk to a teacher about getting involved in **OzCLO** or check out: www.ozclo.org.au