

# Sixth International Olympiad in Theoretical, Mathematical and Applied Linguistics

Bulgaria, Sunny Beach, 4–9 August 2008

Solutions of the Problems of the Individual Contest

## Problem #1. Rules:

1. The apostrophe indicates length if it follows a vowel, and is read as [ə] if it follows a consonant.
2. The letter **w** stands for a rounding of the lips after a consonant and for the sound [w] otherwise.
3. [ə] is pronounced, though not written, between any consonant and a following sonorant consonant ([l m n]).
4. [ə] is also pronounced before a consonant cluster at the beginning of a word.
5. **p t j g gw q qw** are pronounced as voiced consonants ([b d j g g<sup>w</sup> y y<sup>w</sup>]) at the beginning of a word or between vowels and as voiceless consonants ([p t c k k<sup>w</sup> x x<sup>w</sup>]) at the end of a word or next to another consonant.

Answers:

- (a) 12 [əksənxōyon], 13 [ətkəbox], 14 [gəmūjəmin], 15 [emtoy<sup>w</sup>atk], 16 [dēbəlc];  
(b) 17 *tp'te'sn*, 18 *mtesgm*, 19 *alapt'g*, 20 *glamen*.

## Problem #2. (a) Rules:

1. Number of syllables. Each line contains 6 syllables.
2. Alliteration. See the statement of the problem.
3. Internal rhyme. Let us denote the vowels (and diphthongs) in each line by V<sub>1</sub>, V<sub>2</sub>, ..., V<sub>6</sub>. At least one consonant immediately following V<sub>5</sub> must immediately follow V<sub>n</sub> ( $n = 1, 2$  or 3). Also, in even lines V<sub>n</sub> = V<sub>5</sub>.

For instance, cf. lines IV, 1–6 (alliteration is marked in boldface, internal rhyme by underlining):

### IV

- 1 háði gramr, þars gnúðu,
- 2 geira hregg við seggi,
- 3 (rauð fnýsti ben blóði)
- 4 bryngogl í dyn Skóglar,
- 5 þás á rausn fyr ræsi
- 6 (réð eggliituðr) seggir ...

(b) Leftover words: **hœgra, smíði**.

### V

- |   |   |  |                                   |
|---|---|--|-----------------------------------|
| 1 | a | <b>ríks</b>                                  | (þreifsk reiddra <u>øxa</u>       |
| 2 | b | <b>rymr</b>                                  | ; knóttu spjór c glymj <u>a</u> ) |
| 3 | d | <b>svartskyggð</b>                           | bitu <u>seggi</u>                 |
| 4 | e | <b>sverð</b>                                 | þjóðkonungs ferðar,               |
| 5 | f | <b>þás</b> ( <b>hugfyldra</b> <b>holða</b> ) |                                   |
| 6 | g | <b>hlaut</b>                                 | andskoti i <b>Gauta</b>           |
| 7 | h | (hór vas <b>songr</b> of <b>kvírum</b> )     |                                   |
| 8 | i | <b>sigr</b>                                  | (flugbeiddra <b>vigra</b> ).      |