

2009 Solutions

(J) HypoHmongdriac

1. ____ be lost
2. ____ beef
3. ____ beverage
4. ____ bovine* livestock
5. ____ chicken (the animal)
6. ____ dog (the animal)
7. ____ filthy animals; filth
8. ____ filthy language
9. ____ flesh; meat
10. ____ hurt
11. ____ internal organs; soul
12. ____ language
13. ____ liver (the organ)
14. ____ livestock
15. ____ lose heart ("liver"); lose one's wits; panic
16. ____ lose life to water; drown
17. ____ lose money ("silver")
18. ____ lungs
19. ____ money
20. ____ small, non-bovine livestock
21. ____ pig (the animal)
22. ____ poetic genre ("money-language")
23. ____ silver
24. ____ suffer from a headache ("brain-ache")
25. ____ suffer from grief ("liver-ache")
26. ____ suffer from lung disease ("lung-ache")
27. ____ water
28. ____ water-buffalo liver
29. ____ wealth
30. ____ whisky
31. ____ young female
32. ____ young sow



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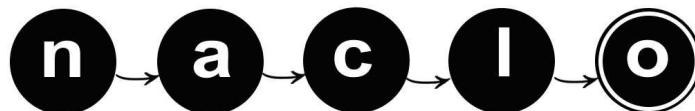
Solution:

28, be lost; 17, beef; 6, beverage; 15, bovine livestock; 13, chicken; 10, dog; 12, filthy animals; 23, filthy language; 18, flesh; 32, hurt; 3, internal organs; 24, language; 1, liver; 16 livestock; 25, lose heart; 27, lose life to water; 26, lose money; 2, lungs; 8, money; 14, small livestock; 11, pig; 22, poetic genre; 7, silver; 30, suffer from a headache; 29, suffer from grief; 31, suffer from lung disease; 4, water; 21, water-buffalo liver; 9, wealth; 5, whisky; 20, young female; 19, young sow

To solve this problem, it is important to realize that both of the two collections of words can be seen as networks, where words are connected by hyponymy relationships, and that these two networks must have equivalent shapes. However since “matching up” a whole network (or “graph”) of this kind with another is difficult even for a computer, solving this problem requires noting that the graphs are largely composed of smaller graphs with a tree-like shape. These are much simpler to deal with.

For example, you might observe that there are exactly two components of the graph where three words are hyponymns of a single word (like a tree with three branches) for both the Hmong and English collections. This allows you to infer that 25-28 and 29-32 must be either ‘be lost’ and the ‘lose’ words or ‘hurt’ and the ‘suffer’ words. You can determine how to match them by noting that only one of the roots in the Hmong words does not occur elsewhere (*hlwb*) and that only one of the English meanings does not occur elsewhere (‘brain’). This suggests that 29-32 must be the ‘hurt/suffer’ group and 25-28 must be the ‘lost/lose’ group. Furthermore, since *sab* occurs in both of these groups, and since ‘liver’ occurs in both groups, *sab* must be ‘liver’, *sab-twm* must be ‘water-buffalo liver’ and *twm* must mean ‘water buffalo’.

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This will lead you to the livestock tree in 12-16 and the realization that Hmong compounds are of at least two types. In one type, the meaning of the whole is the meaning of the first part modified by the second part (as in *sab-twm*). In the second type, the meaning of the whole is a general category including the meaning of both parts (that is, both parts are hyponymns of the whole). Knowing that *twm* is 'water buffalo' should allow you to guess that *nyuj-twm* is 'bovine livestock' since 'water buffalo' is a hyponym of only 'livestock' and 'bovine livestock', 'bovine livestock' is a hyponymn of 'livestock' and *nyuj-twm* is a hyponymn of *qab-npua-nyuj-twm*. We can now see that 3, 6, 9, and 12 are all compounds of the second type, and reason from what is known about their parts that 3 and 6 must be 'internal organs; soul' and 'beverage'. We see that 12 must be 'filthy animal; filth' since it occurs embedded inside of a type one compound that can only mean 'filthy language' (23). Therefore, 14 must be 'small, non-bovine livestock'.

By applying similar logic to the remaining cases, you will arrive at the answer given above.

