(14) Fakepapershelfmaker (1/2)

14.1.
(a) *nisetanukijiru*   fake soup made out of raccoons
(b) *nisedanukijiru*   soup made out of fake raccoons
(c) *irogamibako*   box for colored paper
(d) *irokamibako*   colored box for paper
(e) *nisezakuradana*   shelf for fake cherry blossoms
(f) *nisesakuradana*   fake shelf for cherry blossoms

14.2.
(1) a fake shelf-maker made of paper   B: *nisekamitanadzukuri*
(2) a maker of fake shelves for paper   D: *nisekamidanadzukuri*
(3) a fake maker of shelves for paper   D: *nisekamidanadzukuri*
(4) a shelf-maker made of fake paper   C: *nisegamitanadzukuri*
(5) a maker of shelves for fake paper   A: *nisegamidanadzukuri*

14.3. When we compound two Japanese words, the first word modifies/describes the second. For example, adding *hashi* before *hako* makes a word meaning a box (*hako*) for chopsticks (*hashi*). As another example, adding *nuri* before *hashi* makes a word meaning chopsticks (*hashi*) that are lacquered (*nuri*).

Every simple (non-compound) word has two forms: the basic form, used when it occurs alone, and the variant form, sometimes used in compound words.

Basic	Variant	Basic	Variant
hako	<u>b</u>ako	shiru	<u>j</u>iru
hana	<u>b</u>ana	Sora	<u>z</u>ora
hashi	<u>B</u>ashi	tana	<u>d</u>ana
kami	<u>g</u>ami	tanuki	<u>d</u>anuki
kiri	<u>g</u>iri	tsukuri	<u>dz</u>ukuri
sakura	<u>z</u>akura		

The variant form has a different first letter, which depends on the first letter in the basic form. Specifically, we replace the initial *h* with *b*, initial *k* with *g*, initial *s* with *z*, initial *sh* with *j*, initial *t* with *d*, and initial *ts* with *dz*. As a side note, some letters do not require replacement, but they do not occur in the problem.

We next deduce rules for compounding simple words; we denote basic forms by a, b, c, and d, and respective variants by <u>a</u>, <u>b</u>, <u>c</u>, and <u>d</u>. We first notice that two-member compounds have the following structure:

$$a + b \rightarrow a\underline{b}$$

Three-member compounds have two different structures, which depend on their meaning. If we first form a

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word containing *a* and *b*, and then compound it with *c*, we use the following structure:

$$(a + b) + c \rightarrow a\underline{b} + c \rightarrow a\underline{bc}$$

If we first compound *b* and *c*, and then add *c*, we use a different structure:

$$a + (b + c) \rightarrow a + b\underline{c} \rightarrow ab\underline{c}$$

Thus, when we combine two (simple or compound) words into a larger compound word, we use the following rules:

- We use the original form of the first word.
- If the second word is simple (noncompound), we use its variant form.
- If the second word is compound, we do not change it.

When compounding four simple words, we can get five different internal structures; two of them give the same result, which is why the four compounds in part 2 correspond to five possible meanings.

We can now determine which English version corresponds to what structure.

(1) **a fake shelf-maker made of paper**
  → fake + (paper + (shelf + maker))
  → a + (b + (c + d))
  → a + (b + c\underline{d})
  → a + bc\underline{d}
  → abc\underline{d}
  → ***nise-kami-tana-dzukiri*** (B)

(2) **a maker of fake shelves for paper**
  → (fake + (paper + shelf)) + maker
  → (a + (b + \underline{c})) + d
  → (a + b\underline{c}) + d
  → ab\underline{c} + d
  → abc\underline{d}
  → ***nise-kami-dana-dzukuri*** (D)

(3) **a fake maker of shelves for paper**
  → fake + ((paper + shelf) + maker)
  → a + ((b + c) + d)
  → a + (bc + d)
  → a + bc\underline{d}
  → abc\underline{d}
  → ***nise-kami-dana-dzukuri*** (D)

(4) **a shelf-maker made of fake paper**
  → (a + b) + (c + d)
  → a\underline{b} + c\underline{d}
  → ab\underline{cd}
  → ***nise-gami-tana-dzukuri*** (C)

(5) **a maker of shelves for fake paper**
  → ((a + b) + c) + d
  → (a\underline{b} + c) + d
  → (ab\underline{c}) + d
  → abc\underline{d}
  → ***nise-gami-dana-dzukuri*** (A)

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