

**Exercises**

1. Provide phonemic transcriptions for the following words (Received Pronunciation; consult the Oxford Dictionary and IPA). Describe each phoneme in terms of place and manner of articulation.

*dog, cat, ice, snow, seed, bear, there*

2. Consider these phonetic forms of Hebrew words:

[v] – [b]

bika ‘lamented’

migbal ‘limited’

ʃavar ‘broke’ (masc.)

ʃavra ‘broke’ (fem.)

ʔikev ‘delayed’

bara ‘created’

[f] – [p]

litef ‘stroked’

sefer ‘book’

sataf ‘washed’

para ‘cow’

mitpaxat ‘handkerchief’

haʔalpim ‘the Alps’

Assume that these words and their phonetic sequences are representative of what may occur in Hebrew. In your answers, consider classes of sounds rather than individual sounds.

**Answer the following questions:**

a) Are [b] and [v] allophones of one phoneme? Are they in complementary distribution? In what phonetic environments do they occur? Can you formulate a phonological rule stating their distribution?

b) Does the same rule, or lack of a rule, that describes the distribution of [b] and [v] apply to [p] and [f]? If not, why not?

c) Here is a word with one phone missing. A blank appear in place of the missing sound: hid\_ik.

Check the one correct statement:

- i. [b] but not [v] could occur in the empty slot.
- ii. [v] but not [b] could occur in the empty slot.
- iii. Either [b] or [v] could occur in the empty slot.
- iv. Neither [b] nor [v] could occur in the empty slot.

3. Write a rule for the deletion (omission) of /t/ in words and phrases like *postman, must be, post doc*. Write a second rule that would describe deletion of /t/ if it was obligatory in *postman* and *must be*, but prohibited in *post doc*.

4. For each group of sounds listed, state the phonetic feature(s) they all share.

*Example:* [p], [b], [m] – bilabial, stop, consonant

- a. [g], [p], [t], [d], [k], [b]
- b. [u], [o], [ɔ], [ɒ]
- c. [i], [e], [ɪ], [ɛ]
- d. [t], [s], [ʃ], [p], [k], [tʃ], [f], [h]

5. Consider the following alternation that occurs in English. Describe it as assimilation, dissimilation, lenition, fortition, epenthesis, or deletion. Write down a formal rule/formal rules for the alternation.

The prefix con-, meaning ‘with,’ has three different allomorphs: conduct [kɒndʌkt], complain [kəmpleɪn], congress [kɒŋɡrɛs].

6. Write a formal rule based on this description.

Voiceless stops and fricatives become voiced between sonorants.



## Answers

2. a) Are [b] and [v] allophones of one phoneme? Are they in complementary distribution? In what phonetic environments do they occur? Can you formulate a phonological rule stating their distribution?

*A possible answer:*

Considering only these examples, they are allophones (they are in complementary distribution).

We have the following contexts for [b]: #\_V, C\_V.

We have the following contexts for [v]: V\_V, V\_C, V\_#.

Based on these data, we can assume that [v] appears after a vowel, and [b] – elsewhere.

The following rule can be proposed: /b/ → [v] / V\_\_

3. a) /t/ → ø / [+consonant, +alveolar, +fricative, -voice]\_\_ [+stop] ← *this is an example*

b) /t/ → ø / [+consonant, +alveolar, +fricative, -voice]\_\_ [+stop, +bilabial] ← *this is an example*

4. a. [g], [p], [t], [d], [k], [b] – stops, consonants

b. [u], [ʊ], [o], [ɔ] – \*back, rounded, vowels

\*if we adopt front – mid – back distinction

c. [i], [e], [ɪ], [ɛ] – front, unrounded, vowel

d. [t], [s], [ʃ], [p], [k], [tʃ], [f], [h] – voiceless, obstruent, consonants

5. assimilation

Based on these data, we can assume that /n/ is realized in the same place as the following consonant.

/n/ → [αplace] / \_\_ [+consonant, αplace]

6. *An example how to do this:*

[-voice, +stop] → [+voice] / [+sonorant] \_\_ [+sonorant]

[-voice, +fricative] → [+voice] / [+sonorant] \_\_ [+sonorant]