YOUR NAME: Marcus Kracht

YOUR ID: _____

YOUR TA: _____

No material is admitted except paper and pencil. Remember to write legibly. We prefer brief answers. There is a maximum of 50 Points. The midterm is worth 10 % of the overall score, less than a single assignment. So do not panic!

> **Important Note.**
> The following exam uses only the sounds of **English** and their corresponding IPA symbols.

Total number of points: 50   Your score: _____

Question 1. (4 Points) Mark the following whether they are minimal pairs or not:

[pɪn]   : [tɪn]   ■ Yes ☐ No

[splɪt] : [spɪt]   ☐ Yes ■ No

[næp] : [pæn]   ☐ Yes ■ No

[tɹɪm] : [tɹæm]   ■ Yes ☐ No

Question 2. (4 Points) Answer whether the pairs involve the same place of articulation or not:

[θ] : [t]   ☐ Yes ■ No

[t] : [ʃ]   ☐ Yes ■ No

[n] : [d]   ■ Yes ☐ No

[l] : [ɹ]   ■ Yes ☐ No

Question 3. (2 Points) (a) Which feature distinguishes schwa from all other vowels?

[+reduced] (the answer 'reduced'—without value—is also correct)

(b) (Fill in the appropriate value:) Dorsal consonants are $\begin{bmatrix} + & \text{high} \\ - & \text{low} \end{bmatrix}$.

Question 4. (4 Points) Check whether the following sounds have labial, dorsal, or coronal features:

	Labial	Coronal	Dorsal
[t]	□ Yes ■ No	■ Yes □ No	□ Yes ■ No
[w]	■ Yes □ No	□ Yes ■ No	■ Yes □ No
[v]	■ Yes □ No	□ Yes ■ No	□ Yes ■ No
[ʃ]	□ Yes ■ No	■ Yes □ No	□ Yes ■ No

Question 5. (5 Points) Are the following a natural classes of English phonemes?

the class of all sounds   ■ Yes □ No

$\{w, ʍ, j\}$ ■ Yes □ No

the class of all stops   ■ Yes □ No

$\{m, d, t\}$ □ Yes ■ No

$\{h\}$ ■ Yes □ No

Question 6. (6 Points) Let the following rule be given (V stands for any vowel).

$$\begin{bmatrix} -\text{continuant} \\ -\text{nasal} \end{bmatrix} \rightarrow [+\text{nasal}]/V\_\_V$$

Apply this rule to the following strings.

① [lɛdo] Output: [lɛno]

② [daθa] Output: [daθa]

③ [otrop] Output: [otrop]

Question 7. (5 Points) Name the components of a syllable:

<u>Answer</u> onset, rhyme, nucleus, coda

Draw the syllable structure of the monosyllabic word `trump` [tɹʌmp].

```
σ    σ    σ    σ    σ
     R    R    R
O    O    N    Co   Co
t    ɹ    ʌ    m    p
```

Question 8. (2 Points) English syllables cannot end in a sequence of nasal plus stop which disagree in place. Explain why the words `unprecedented` [ʌnpɾɛsədɛntəd], and `conglomerate` [kənglɑməɹət] do not contradict this.

<u>Answer</u> Since the syllable boundary falls between [n] and [p] and between [n] and [g] (because there are no onsets [npr] and [ngl]), there is no contradiction to the rule. The nasal and stop are in different syllables.

Question 9. (4 Points) Divide the word [ɪntɹospɛkʃən] (`introspection`) into syllables. Say why it has to be divided in this way.

<u>Answer</u> Anything along these lines is correct: [ɪn.tɹo.spɛk.ʃən]

There is no onset [ntɹ]. But [tɹu] `true` exemplifies the onset [tr]. The word [spɪt] `spit` exemplifies the onset [sp]. There is no onset of the form [kʃ] but [ʃ] alone can be an onset: [ʃu] `shoe`.

Question 10. (8 Points) The sound [n̪] is distinct from [n] in that the tongue is moved further towards the teeth. Here is where we find [n̪] and [n] in English:

know	[ˈno]	tenth	[ˈtɛn̪θ]
annoy	[əˈnɔɪ]	month	[ˈmʌn̪θ]
never	[ˈnɛvɹ̩]	panther	[ˈpæn̪θɹ]

① Write a rule of realization for the change of the phoneme /n/ into [n̪] that accounts at least for the examples above.

   <u>Answer</u> /n/ → [n̪] / __ θ

② Would you expect [n̪] to occur before [ð] even without referring to the given data? Give reasons for your answer!

   <u>Answer</u> Yes. It seems to be causd by the fact that the tongue must be moved outward to the teeth to pronounce [θ]. The place of articulation of [ð] is the same.

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Question 11. (6 Points) Below are six claims. Answer yes or no depending on whether they are true or false.

1. Sounds belonging to the same phoneme are allophones (of each other).

   ■ Yes □ No

2. No sound can have more that one place of articulation.   □ Yes ■ No

3. The phonotactics of onsets are the same across all languages.

   □ Yes ■ No

4. [voice] is a laryngeal feature.   ■ Yes □ No

5. In English, [p] and [p^h] are in complementary distribution.   ■ Yes □ No

6. In English, glides can be in the nucleus.   □ Yes ■ No