1. Linguistic competence is the unseen potential to speak or write a language, while linguistic performance is the observable realization of this “linguistic potential”.

2. Since only linguistic performance can be objectively measured, a few performance errors should not detract from individuals’ linguistic competence; after all, even native speakers make some mistakes occasionally. There are also some confounding variables, e.g. distraction, tiredness, etc.

3. The simple chain is just steps (i) through (ix), not including any sub-parts. If the host and receiver cannot communicate in the same language, an interpreter does the translation process by repeating the entire communication chain, but with receiver-side before host-side. If there is interference (noise) in the communication chain, the correct idea may not be shown properly. This might occur for many reasons, such as a mis-translation on the part of the interpreter. Generally:
   i. Tra: Think of an idea
   ii. Tra: Pick out words to express idea
   iii. Tra: Put words in a rule-governed order
   iv. Tra: Figure out how to pronounce words
   v. Tra: Send speaking cues to vocal structure
   vi. Tra: Actually speak, i.e. send sounds through air
   a. Int: Perceive sounds in the air
   b. Int: Decode the heard sounds
   c. Int: Receive the communicated idea
   d. Int: Translate idea to words in receiver’s language
   e. Int: Put those words in another order
   f. Int: Figure out how to pronounce those words
   g. Int: Send speaking cues to vocal structure
   h. Int: Actually speak the translated words
   vii. Rec: Perceive sounds (original/translated) in the air
   viii. Rec: Decode the heard sounds
   ix. Rec: Receive the communicated idea

4. Phonons are the basis of sound waves in air. They are not linguistic phenomena. The other ones are linguistic:
   i. Phoneme: smallest unit of sound used in language
   ii. Morpheme: smallest meaningful unit of sound
   iii. Grapheme: smallest unit of a writing system
   iv. Cereeme: smallest unit of gesture used in SLs

5. We define each linguistic term below:
   A. Phonetics: study of sound
   B. Phonology: study of organization of sounds
   C. Morphology: study of formation of words
   D. Syntax: study of rules that govern word structure
   E. Semantics: study of meaning
   F. Pragmatics: study of contexts used in meanings
   G. Semiotics: study of meaning-making
   H. Graphemics: study of writing systems
   I. Orthography: study of writing conventions

6. Lexical, computational, and formal semantics.

7. We define each linguistic term below:
   i. Mental grammar: set of rules about the language known implicitly by a speaker
   ii. Descriptive grammar: collections of generalizations about a language based on empirical observations
   iii. Prescriptive grammar: collections of generalizations about what a language should be like

8. Here are five descriptive statements about English:
   i. Adjectives usually come before the nouns they modify
   ii. Some verbs can also be used as nouns (gerunds)
   iii. The prefix un- is often used for negation
   iv. Many speakers shift the tone of the final word in a phrase upward if that phrase is intended to be a question
   v. In casual speech, speakers often end their sentences with prepositions rather than rearranging them

9. ♦ The sentence has been rearranged so that it does not end with a preposition. Another way of writing it might be This is the sort of English that I will not put up with. We can say the following statements, based on this information:
   i. Descriptive: Some native speakers of English rearrange words so that sentences do not end with prepositions
   ii. Prescriptive: Sentences should never end with a preposition in English; they should always be rearranged

10. An example of a descriptive statement and a prescriptive statement is shown below. The second set of statements in each pair reveals how the statement might change if younger speakers of English begin saying phrases such as shirt green.
   i. Descriptive statement:
      a. Adjectives usually come before the nouns they modify in English.
      b. Adjectives may come before or after the nouns they modify in English, depending on the speaker.
   ii. Prescriptive statement:
      a. Adjectives must come before the nouns they modify in English.
      b. Adjectives must come before the nouns they modify in English unless the noun-adjective pair are either both abstract or both tangible. For example, idea brilliant is fine, but nights loud is not.

11. We identify each statement below:
   A. Prescriptive. Both it is me and it is I are ways speakers represent the idea that they are present.
   B. Descriptive. The phrase ain’t is ungrammatical; is not is the only correct way to express this idea.
   C. Descriptive. Sentences should never end with a preposition in English; they should be rearranged.
   D. Prescriptive. English speakers usually agree the subject and verb of their sentences that start with There is/are.
   E. Descriptive. The sentence My mother loved by itself is ungrammatical without an object of the sentence.

12. Here are two pieces of evidence:
   A. Writing must be taught, while spoken language is acquired naturally (before school even begins).
   B. Writing is not universal, while speech is in every society; there are no written-only societies, for example.

13. Corpus linguistics focuses on studying language from the perspective of real-world text sources. It is intended to inform linguistics of abstract rules that govern a natural language via a digestive approach.

14. A valid transcription might be No ale is brewed among the Estonians. Another one may be Estonians do not brew any ale.
15. We choose the seven most prominent features from the original paper and the three most prevalent ones from the revision of the model. All ten are described below:

i. **Mode of communication**: means by which messages are transmitted and received

ii. **Pragmatic function**: all communication systems must serve a meaningful purpose

iii. **Cultural transmission**: some aspects of language can only be acquired through communicative interaction

iv. **Arbitrariness**: connection between a linguistic form and its associated meaning are completely arbitrary

v. **Discreteness**: discrete units can be combined to create larger communicative blocks

vi. **Displacement**: language has the capacity for communication of ideas/actions that are not present

vii. **Productivity**: language has the capacity for novel ideas

viii. **Transitoriness**: sounds are temporary and can change

ix. **Prevaporation**: language has the capacity for lies

x. **Learnability**: language has the capacity to be learned

16. A linguistic sign is the combination of a linguistic form and its associated meaning. An arbitrary sign is one in which the connection between the form and its associated meaning is completely arbitrary; that is, there is no need to choose that particular form to represent that meaning. On the other hand, an iconic sign is one in which the form directly gives rise to the associated meaning.

17. The IPA is arbitrary in that while it is a standardized set of symbols used to indicate pronunciations universally, the symbols themselves are chosen arbitrarily, and do not generally imply anything about how they are pronounced.

18. The *no* sign itself is completely arbitrary. There could be other forms that represent this idea, such as the word **NO** itself. On the other hand, the *smoking* sign, which is a cigarette, is iconic, as it directly implies the meaning with its form. Together, they form an iconic sign, as the presence of the cigarette implies that it is forbidden (with the *no* sign).

19. Traffic signs in the United States can be of both types:

i. **Iconic**: a speed limit sign

ii. **Arbitrary**: a yield sign

20. ♦ We consider the relationship between form and meaning in both the grammatical and ungrammatical Mandarin:

A. 他从三藩市经过芝加哥到纽约: arbitrary.

B. 他从三藩市到纽约经过芝加哥: iconic.

21. Compound words such as *blackboard* and *outfox* are non-arbitrary in the sense that their meanings are constructed directly out of two other words whose meanings are already known. So in a sense, this is non-arbitrary in that the existing words directly give rise to the meaning of the compound word. This is not generally true of compound words, though. For example, the word *strawberry* is a compound word, but the two constituent words do not give rise to its meaning.

22. Double-diminutives do not occur naturally in English. Occasionally some borrowed words have this form, however. For example, the form *rivulet*, which is borrowed from Italian. The original Italian is *rivolletto*, a diminutive form of *rivolo*, which itself is a diminutive form of *rico*. A *rico* is a brook, so it can be inferred that a *rivulet* is a very small stream of water.

Below, we present an example of a diminutive noun and an augmentative noun that is used frequently in English:

i. **Diminutive**: -ish suffix

ii. **Augmentative**: mega- prefix

23. These mimetic words are known as *ideophones*. We describe each type of ideophone present in Japanese below:

i. **擬声語**: mimic sounds made by living things

ii. **擬音語**: mimic sounds made by inanimate objects

iii. **擬態語**: depict states/conditions of the external world

iv. **擬情語**: depict psychological states/feelings

24. ♦ We identify the “light” and “heavy” word in each pair:

A. light: lat; heavy: loot

B. light: feen; heavy: foon

C. light: meeb; heavy: mobe

D. light: slee; heavy: seeg

E. light: feen; heavy: feen

F. light: poat; heavy: poas

G. light: toos; heavy: tood

25. We define each linguistic term below:

i. **Formal language**: set of strings of symbols, together with a set of governing rules; e.g. C++

ii. **Natural language**: a language that has evolved naturally in a speech-based community; e.g. English

iii. **Constructed language**: a language specifically invented that may imitate a natural language; e.g. Esperanto

iv. **Reconstructed language**: a language that has died in the past but since been historically recreated; e.g. Hebrew

26. ♦ This reveals that the minimum length for a pause in a spoken language is not a fact about the linguistic processing ability of the brain, but rather a fact about auditory-vocal languages. That is, this duration is not a physical limitation, despite the fact that people need to breathe while speaking.

27. We describe the perception/production of both types below:

i. **Auditory-oral language**: perceived by listening, produced by speaking

ii. **Visual-gestural language**: perceived by watching, produced by gesturing hands/facial movements, etc.

28. We define each linguistic term below:

i. **Signed language**: a visual-gestural language that is not necessarily derived in any way from its spoken form

ii. **Manual codes**: an artificially-constructed system that represents a natural language, usually one-to-one

iii. **Pantomimes**: a form of signed communication where signers draw pictures in the air to act out ideas/words

29. No, it would still not be acceptable to classify it as a language. This is because it still misses out on some of Hockett’s design features; for example, this wolven language lacks cultural transmission, displacement, and productivity.

30. ♦ We group the signs by their types (typology):

i. **Iconic**: G

ii. **Arbitrary**: D, E, F, H

iii. **Symptomatic**: A, B, C, I, J