

YOUR NAME: \_\_\_\_\_

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YOUR TA: \_\_\_\_\_

**No material is admitted except paper and pencil. Remember to write legibly. There is a maximum of 100 Points. The exam is counting 20 % towards the degree.**

Total number of points: 100Your score:**Question 1.** (4 Points) Let the following inference be given:

Julia is sitting behind Joe.

Joe is sitting in front of Bill.

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 $\therefore$  Julia is sitting beside Bill.
**Solution.**

This inference is:  Valid,  Invalid. If valid, say briefly why. If invalid, sketch a situation where the premisses are true and the conclusion is false.

Let them sit (back to front:) Julia, Bill, Joe. *Remarks.* Most people got that one right.

**Question 2.** (3 Points) Suppose that  $V$  is distributive. Are the following inferences valid?

(a) 
$$\frac{\text{Jake Vs.}}{\text{Jill Vs.}} \quad \therefore \text{Jake and Jill V.}$$

(b) 
$$\frac{\text{Jake and Jill V.}}{\therefore \text{Jake Vs.}}$$

(c) 
$$\frac{\text{Jake and Jill V.}}{\therefore \text{Jill Vs.}}$$

**Solution.**

(a)  Valid  Invalid. (b)  Valid  Invalid. (c)  Valid  Invalid.

*Remarks.* By definition. Most people got that one right.

**Question 3.** (3 Points) Of the following sentences say which one implies the other:

(3.a) I have only one paper that is white.

(3.b) I have only one paper, which is white.

**Solution.**

(b) implies (a). *Remarks.* This much is enough. For if (b) is true, then you have only one paper, and it is white. And then (a) is also true. But if you have 2 sheets of paper, one red one white, (a) is true while (b) is false. So (a) does not imply (b). 3 points down if you got it wrong. But most people didn't.

**Question 4.** (6 Points) (a) Describe in terms of c-command the two readings of the following sentence.

John is tall or Pete is small and Claire is smart.

**Solution.**

① /or/ c-commands /Pete is small and Claire is smart/;

② /or/ c-commands only /Pete is small/.

*Remarks.* Common mistakes:

- to not talk about c-command (only 1 point off if you gave me bracketings instead);
- to say that /Claire is smart/ c-commands something (1 point off, it does not); (However, there are many more c-command relations to distinguish the two readings and were counted if correct.)

- to say something like: is interpreted first, or understood first, or the like. No points off, but it is not counted as correct either.

(b) Assign truth values to the elementary sentences to make exactly one of the above readings true (and say which one it makes true).

**Solution.**

Suppose that /John is tall/ is true; that /Pete is small/ is true; and that /Claire is smart/ is false. Then ① is true ( $1 \cup (1 \cap 0) = 1 \cup 0 = 1$ ), while ② is false ( $(1 \cup 1) \cap 0 = 1 \cap 0 = 0$ ). *Remarks.* There are alternatives. Actually, /Pete is small./ could also be false. 1 Point off if you did not say what the valuation is and instead went on to make deductions as to what could possibly be the case. One thing you have to learn is answer the question!

**Question 5.** (6 Points) Describe a test to decide whether an event is telic (= non-divisible). Apply it to the following sentences to decide whether or not they are telic.

- (5.a) John was chewing peanuts.  
 (5.b) John solved the cross-word puzzle.

**Solution.**

One test is: add /in an hour/ at the end. If the sentence is grammatical (or acceptable), the original sentence is telic. Another is: add /for an hour/ at the end. If the sentence is grammatical (or acceptable), the original sentence is atelic. Most people used only one of the tests, which I accepted. (Though atelic is not the same as not telic, since there are sentences which are neither; but I ignored that.) So, (5.a) is atelic, since it is acceptable to say /John was chewing peanuts for an hour./ (but unacceptable to say /John was chewing peanuts in an hour./). (5.b) is telic, since it is acceptable to say /John solver the cross-word

puzzle in an hour./ (but unacceptable to say /John solver the cross-word puzzle for an hour./).

**Question 6.** (6 Points) Describe a test to find out whether a given noun is a mass noun. Use this test to say which of the following words is a mass noun and why: /air/, /headache/, /warning/, /luggage/.

**Solution.**

One test (among many) is to pluralise; if the plural is acceptable, we have a count noun: /airs/, /luggages/ are unacceptable, so these are mass nouns; /headaches/, /warnings/ are fine, so these are count nouns.

*Remarks.* Most people used the test of divisibility of referent. However, when they came to /luggage/, they started to wing it. Instead of saying: it is not really divisible, they started to claim that it is. For example, if you have many suitcases, it is divisible. Sure, but if you have only one, what happens? You have to bite the bullet and say: that too is divisible, up to the last shirt, and even further. Anyone applying the test consistently, got full credit. Many people however classed /luggage/ as a mass noun but gave me different reasons (ie were not applying the test they proposed themselves). I called that being inconsistent. Other tests: to try to add /a lot of/. In solving this exercise you have to watch your language. Some people said that the test is to see whether the noun is divisible. It isn't, no matter which one you picked. You meant, the denotation of the noun, not the noun itself.

**Question 7.** (6 Points) Classify the following morphological changes and apply them to the third word (give the meaning of the new word as well!):

- ① (Dative in Hungarian:) /nap/ 'day' becomes /napnak/ 'to/for the day', /hold/ 'moon' becomes /holdnak/ 'to/for the moon'.

**Solution.**

The type of change is: suffixation.

/só/ 'salt' becomes /sónak/ 'to/for the salt'.

- ② (Passive in Indonesian:) /gigit/ 'to bite' becomes /digigit/ 'to be bitten',  
/beri/ 'to give' becomes /diberi/ 'to be given'.

**Solution.**

The type of change is: prefixation.

/masak/ 'to cook' becomes /dimasak/ 'to be cooked'

*Remarks.* 1 points off per case if you forgot the meaning. Some people offered me 'derivation' or other words for 'type of change'. I counted that as long as it was correct. But to add the dative suffix or the passive is not a derivation, sorry.

**Question 8.** (4 Points) Name four Germanic languages.

**Solution.**

German, Dutch, Norwegian, English. *Remarks.* Most people got that right. I counted any dialect as correct, as long it was a Germanic dialect of course. One answer contained 'Belgian'. Now that does not work. They speak two dialects in Belgium, a dialect of French and a dialect of Dutch, called Flemish. The latter is a dialect of a Germanic language, so would have counted. Belgian, however, does not count.

**Question 9.** (2 Points) True or False?

**Solution.**

	True	False
Hittite is an Indo–European language.	x	
French is a daughter language of Latin.	x	
There are Celtic languages which are still spoken.	x	
We have a description of a language and how it sounded 2500 years ago.	x	

**Question 10.** (3 Points) Assign indices to the following items such that Principles A and B of binding are respected:

**Solution.**

(10.a) The boy<sub>1</sub> wanted food for himself<sub>1</sub>.

(10.b) Mary<sub>1</sub> showed the boy<sub>2</sub> her<sub>1</sub> bicycle.

*Remarks.* We can also assign all three DPs a different index. Almost everyone got that right. (It was hard to get it wrong...)

**Question 11.** (8 Points) Draw the  $\bar{X}$ -bar tree up to the VP of

The mermaid saw the hungry cat.

**Solution.**

First possibility.

$$[\text{VP } [\text{DP} [\text{D}' [\text{D The}]]] [\text{NP} [\text{N}' [\text{N mermaid}]]]] [\text{V}' [\text{V saw}]] [\text{DP} [\text{D}' [\text{D the}]]$$

$$[\text{NP} [\text{N}' [\text{AdjP} [\text{Adj}' [\text{Adj hungry}]]] [\text{N}' [\text{N cat}]] ]]]]]$$

Second possibility.

$$[\text{VP } [\text{DP} [\text{D}' [\text{D The}]]] [\text{NP} [\text{N}' [\text{N mermaid}]]]] [\text{V}' [\text{V saw}]] [\text{DP} [\text{D}' [\text{D the}]]$$

$$[\text{NP } [\text{AdjP} [\text{Adj}' [\text{Adj hungry}]]] [\text{NP} [\text{N}' [\text{N cat}]] ]]]]]$$

*Remarks.* So, the only choice that exists is between making the adjectival phrase an NP adjunct and making it an N' adjunct. The subject is specifier of VP, the object the complement. Many people made the object an adjunct. That is not possible. Also, many did not know how to handle the adjective. They made it a specifier or a complement of DP or NP. But that cannot work because the adjectives are adjuncts, they are iterable! I counted every wrong local tree as 1 point off.

**Question 12.** (5 Points) True or false?

**Solution.**

	True	False
If a node dominates a node, it also c-commands that node.		x
In English, the complement is to the left of its head.		x
If x c-commands y then x is to the left of y or y is to the left of x.	x	
There are three projection levels.	x	
The specifier c-commands the head of the same phrase.	x	

*Remarks.* There were occasional mistakes. Check the manuscript!

**Question 13.** (4.5 Points) Name all the fricatives of English using their IPA symbols:

**Solution.**

/f/, /v/, /s/, /z/, /θ/, /ð/, /ʃ/, /ʒ/, /h/

*Remarks.* The slashes were not important. 1/2 point off for every missing sound, 1/2 off if you added one or two wrong ones.

**Question 14.** (4 Points) Translate the following AVSs into IPA symbols:

**Solution.**

$$\left[ \begin{array}{l} \text{CONSONANT:} \quad + \\ \text{PLACE} \quad : \textit{alveolar} \\ \text{MANNER} \quad : \quad \textit{stop} \\ \text{VOICE} \quad : \quad + \end{array} \right] \text{d}$$

$$\left[ \begin{array}{l} \text{CONSONANT:} \quad + \\ \text{PLACE} \quad : \textit{velar} \\ \text{MANNER} \quad : \textit{nasal} \end{array} \right] \text{ŋ}$$

**Question 15.** (6 Points) Given a classification into place, manner and voice, say whether the following is a natural class of English phonemes:

$$\{/p/, /k/, /s/, /ʃ/, /t/, /θ/, /f/, /h/, /tʃ/\}$$

If so, name the AVS that describes it. If it is not a natural class, say why.

**Solution.**

[VOICE : -]. *Remarks.* This much was enough. Some people got it right and then got cold feet and argued that this wasn't so. Only mild deductions for that! Others misclassified an occasional sound (thinking, for example, that /h/ is voiced); again, only mild deductions in that case. It was more important to get the reasoning ok.

**Question 16.** (6 Points) Let the following rule be given.

$$[\text{MANNER} : \textit{stop}] \rightarrow [\text{MANNER} : \textit{nasal}]/[\text{MANNER} : \textit{nasal}] \underline{\hspace{1cm}}$$

Apply the rule to the following inputs:

**Solution.**

- ① Input: [roblɛ] Output: [roblɛ]
- ② Input: [hampas] Output: [hammas]
- ③ Input: [patna] Output: [patna]
- ④ Input: [trento] Output: [trenno]

*Remarks.* Many, many people got that right. I am pleased.

**Question 17.** (4 Points) True or false?

**Solution.**

	True	False
The coda consists of nucleus and rhyme.		x
A syllable must contain a nonempty onset.		x
The coda can only contain one sound.		x
Onsets may contain vowels.		x

*Remark.* Who would dare to say that all of them are false? Many people thought a coda can contain only one sound. Now, how about the word /ink/ and so many more?

**Question 18.** (4 Points) Say why /ro/ is not a syllable of /improvise/ but /roll/ is a syllable of /enroll/.

**Solution.**

/pr/ can be an onset; for example, the word /pride/ starts with it. Hence, /r/ is not the syllable in /improvise/. /nr/ cannot be onset, as there is no English word that starts with it. Hence, /roll/ is a syllable of /enroll/.

*Remark.* This seemed to be more difficult than I imagined. First, many people gave me back what I claimed in different words. Then, when they at least invoked Maximize Onset (2 points if you did) many said that the reason /pr/ is an onset is that it starts a syllable. That is circular (because Maximize Onset is a principle to obtain the syllables in the first place).

**Question 19.** (7.5 Points) Here is a context free grammar. The start symbol is S.

$$S \rightarrow XX, \quad X \rightarrow aX \mid b$$

**Solution.**

Is /aabab/ derivable?  Yes  No.

Is /bb/ derivable?  Yes  No.

In each case, give a derivation if you ticked 'Yes':

S, XX, aXX, aaXX, aabX, aabaX, aabab

S, XX, bX, bb

*Remarks.* Very many people got that exactly right. I am pleased. Some took two steps at a time (1/2 point off), or made some elementary mistake in trying to derive a string. Mild punishment for such errors.

**Question 20.** (6 Points) Complete the following table (if there are several possibilities, list them all; or say 'any' if the item in question is not specified for the category):

**Solution.**

	gender	number	case
he	masc	sg	nom
you	any	any	non, acc

*Remark.* No problems with /he/. However, /you/ turned out to be tricky. Gender is not just masculine and feminine; ‘any’ is the right solution (or add ‘neuter’). Many thought that /you/ is only singular (1 point off); many more got the cases wrong. /you/ is nominative or accusative. It is not genitive (so, ‘any’ would not be ok). And it is not dative (I ignored ‘dative’, no punishment). 1 point off if you got it slightly wrong (sorry folks, but that one was so easy).

**Question 21.** (2 Points) Put the entire DP into the plural:

that big city, which has such a small population

**Solution.**

those big cities, which have such a small population

*Remarks.* 1 point off if you pluralised /a small population/, 1/2 point off if you said /the/ in place of /those/. Many people gave 1 point away on such a simple exercise!