Ethics for Nerds   Summer Term 2021

Dependable   dcms.cs.uni-saarland.de/ethics_21/
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Milestone Quiz PT (Precise Thinking)

Deadline: 25 July 2021 at 23:59 (German time)

Name: _____   Matriculation no: _____

Reasonably fill each of the following blanks such that the resulting paragraph is correct. If you think that the gap must remain empty, write the hastag symbol (#) in the blank. Each correctly filled gap is worth 0.5 points. You can get at most 15 points. Group work is not allowed.

(a) Let ____ be the set of the premises and ____ the conclusion of an argument A in its logical form.
          ₁   ₂

Then A is logically valid if and only if $\left(\bigwedge_{x \in Y} x \right) \to z$ is a tautology.

(b) Argument ____ is valid, while Argument ____ is not valid.
                ₃   ₄

Argument: Argument A

P1:	My mother has brown hair.
P2:	My father has brown hair.
P3:	If my mother has brown hair and my father has brown hair, then I have brown hair.
C:	I have brown hair.

Argument: Argument B

P1:	My mother has brown hair.
P2:	My father has brown hair.
C:	I have brown hair.

(c) An argument is sound if and only if it is _____ and
                                                             ₅

_____ .
           ₆

(d) The following argument has a famous logical form which is called _____ .
                                                                                      ₇

Argument:

P1:	If some people are not reasonable, Covid-19 will spread further.
P2:	Some people are not reasonable.
C:	Covid-19 will spread further.

(e) "_____" is sometimes used as a keyword in front of a conclusion to signify
                          ₈

that an argument is not meant as a deductive argument, but a defeasible one.

(f) We distinguished two forms of validity, namely _____ validity, and

_____ validity.

(g) The following argument has a famous logical form which is called _____ .

Argument:

P1: If the government ought to make jurisdiction as efficient as possible, the government ought to automate as many jurisdictive processes as possible.

P2: The government ought not to automate as many jurisdictive processes as possible.

C: The government ought not to make jurisdiction as efficient as possible.

(h) The fallacy in which an argument is not sound because one expression is used in two or more different ways is called _____ .

(i) There are several special types of defeasible arguments. Arguments that reason to the best explanation of an observation are also called _____ arguments. If you argue for a conclusion by pointing to similarities in another case, you are making an _____ . An argument that generalizes from a set of observations to a general rule is called an _____ argument.

(j) When the premises of an argument can never all be true at the same time, this argument will always be _____ , but can never be _____ .

(k) Arguments usually come in one of three forms: the _____ form, the standard form, and the _____ form. The _____ form is especially useful to make validity plausible and make it possible to check for soundness at the same time. It also it useful if you are not sure which logic to use for formalizing the argument, or are presenting the argument to someone of whom you think that they do not know logics.

(l) The _____ tells you to always assume the best and strongest interpretation of someone's arguments.

(m) Reasoning is _____ if and only if the corresponding argument is rationally compelling, but not deductively valid.

2

(n) One can _____ phrases (e.g. as in "Ethics for Nerds is a computer science
23

lecture."), and one can _____ phrases (e.g. as in ""Ethics for Nerds" is a
24

funny name for a lecture.")

(o) Though both arguments are very defeasibly forceful, Argument A has less defeasible force than
Argument B.

Argument: Argument A

P1:   Only one out of _____ ba-
25
bies of parents with your health record is
born with disability D.

C: Probably, your baby will not be born with
disability D.

Argument: Argument B

P1:   Only one out of 95.000 babies of parents
with your health record is born with dis-
ability D.

C: Probably, your baby will not be born with
disability D.

(p) As a rule of thumb, one could say that arguments are mainly about truth, while

_____ is mainly about emotions.
26

(q) A standard way of showing that an argument is unsuitable to support its conclusion is to show that

it has at least one _____ premise.
27

(r) It can be the case that one of the following two statements is false, while the other is true, because

"knows" creates a so-called _____ , and Mai might not know
28

that Saarland is the smallest non-city state in Germany.

- Mai knows that Saarland University is located in Saarland.

- Mai knows that Saarland University is located in the smallest non-city state in Germany.

(s) If someone tries to ascribe a much more unfavourable argument to someone than they actually

advocated and argues against this, they are arguing against a so-called _____ .
29

(t) A sound argument by definition can never have a _____ premise.
30