

# Fundamentals of Artificial Intelligence and Knowledge Representation – Module 4

Prof. Federico Chesani – 14th of June, 2021

Available time: 25 min. + 10 min. for submitting the essay

**Notice:** when submitting your essay, please name the file in the following way:

FamilyNameFirstName.date.pdf/.docx

For example, if you are John Smith, the file will be named:

SmithJohn.20210614.pdf

## *Exercise*

1) Given the following LPAD program:

```
win_one_match(Team) :-  
    win_over(Team, _).  
  
win_over(scotland, czechRep) : 0.3.  
win_over(scotland, holland) : 0.2.
```

Which is the probability of the query `win_one_match(scotland)` ?

The candidate should illustrate the Distribution Semantics by showing the “worlds”, the probability of each world, and the formula used to compute the overall probability.

2) The candidate is invited to briefly introduce the Knowledge Graph paradigms, and which are the main differences w.r.t. the Semantic Web proposal.