

Name: _____

Reg #: _____

Section: _____

National University of Computer and Emerging Sciences, Lahore Campus



Course:	Natural Language Processing	Course Code:	CS 535
Program:	MS(Computer Science)	Semester:	Spring 2019
Duration:	30 Minutes	Total Marks:	12
Paper Date:	16-April-19	Weight	5%
Section:	CS	Page(s):	2
Exam:	Quiz 3		

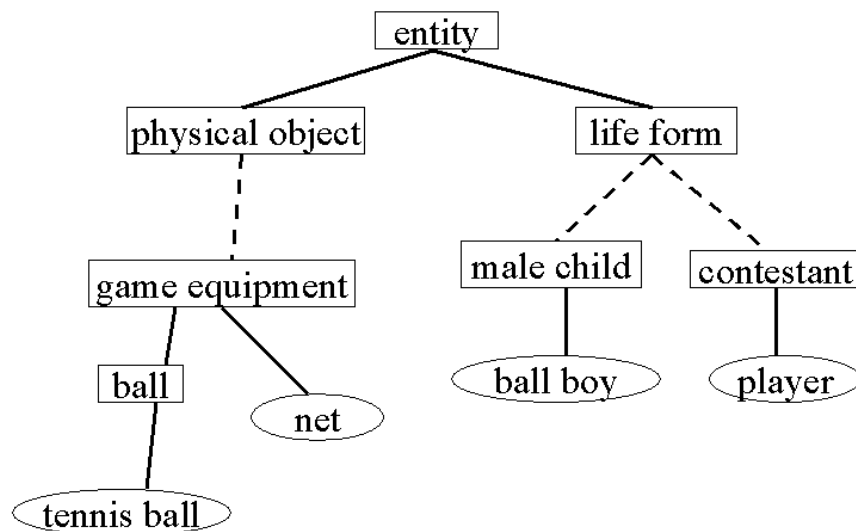
Q1) Which of the following is the definition for "polysemy"? [2 Marks]

- a) Two senses of a word that do not have particular relations between them, for example, the "financial institution" and "sloping mound senses" of "bank."
- b) Two senses of a word that are related semantically, for example, the "financial institute" and "the building belonging to a financial institution" senses of "bank."
- c) Two senses of two different words that are (nearly) identical.
- d) Two senses of two different words that are opposite to each other.
- e) None of the above

Q2) What is boundary error problem in evaluation of NER systems. Explain with example. [3 Marks]

Q3) Give examples of some features that are used for word sense disambiguation. [3 Marks]

Q4) Following is a WordNet hierarchy. The probabilities of words are given in table below: **[4 Marks]**



Word	Probability
entity	0.395
Physical object	0.167
Life form	0.0231
Game equipment	0.00453
Male child	0.00153
contestant	0.00743
Ball	0.000343
Net	0.00054
Ball boy	0.000113
Player	0.000445
Tennise ball	0.000189

- Compute path based similarity between “tennis ball” and “net”
- Compute information content based similarity proposed by Lin (Lin Similarity function) between “ball” and “player”