NO   Date

Knowledge representation & Reasoning

→ Syntax
Semantic

- Logic

↳ Propositional → True|For

↳ Predicate → ∀ E

→ Rules

↳ if - then

meaningful Graph
→ Semantic Net

↳ Google Graph

attributes
↓

→ Frame

↳ slots and Fillers
↓
objects   ER-Diagram

→ Script

↳ To teach machine

— · —

Propositional Logic

Syntax   Semantic

atomic complex

—   Negation

v   Disjunction

∧   Conjunction

→   If - then

↔   iff   (if and only if)

Not Prop. logic→ Some students are intelligent.

                      (T / F)

—————•————•———

Agents / Intelligent Agents

Agent → Sense / Perception → Action
     (Current + History)   Actuator

P	→ Performance
E	→ Environment
A	→ Actions
S	→ Sensors

Goals of Agents

{ High Performance
  Optimized Results
  Rational Action

            ↓
          Right

Autonomous car agent based on PEAS

Types

i) Simple Reflex Agent
ii) Model based Reflex
iii) Goal-based Agents
iv) Utility based Agents
v) Learning Agents

→ Instantly

Simple Reflex Agent

→ Act only on The basis of current perception

→ Ignore the rest of percept history

→ Based on If-Then Rules

→ Environment should be fully observable

if (Temp>45)
Then
Turn-on AC

→ Environment

↓

اگر ٹمپریچر نیچے ہوا؟ جیسے

percept (sense)

↓

Current Situation → If-Then
↓
Action