

19/10  
AI assignment no. 2

Q.1 → What is knowledge Based Agent?

A knowledge-Based Agent (KBA) is an intelligent system that make decisions based on a structured knowledge base. These agent:-

- Stores knowledge about the world in knowledge base
- Utilize inference mechanism to derive new information.
- Use logical reasoning to make decisions.

Knowledge Base Agent can be implemented at three levels namely,

- 1] Knowledge level
- 2] Logical level
- 3] Implementation level.

A) Knowledge level

- It is the most abstract level of agent implementation. The knowledge level describes agent by saying what it knows.

- That is what knowledge the agent has a initial knowledge.

B) Logical level

- At the logical level, the knowledge is encoded into sentence. This level uses some formal language to represent the knowledge the agent has. Two types of representation, we have the propositional logic & first order or predicate logic.

Q.16 Explain role of Robotics in AI with examples.

Robotics is a major application of AI. A robot is defined as an active agent whose environment is the physical world. Robots can be used in various fields

- Manufacturing
- Material handling
- The medical field
- The military

Example:-

Areas where humans cannot reach or in life-threatening conditions, robots can perform the required jobs. e.g. the last generation of robots is equipped with performance advances & a growing integration of vision to transform manufacturing

Robotics & AI sub-areas

- Natural language processing : Extracting information using vision, speech recognition, perception & image formation
- Neural network : Useful for character recognition & image compression.
- Fuzzy Logic :- Development of controllers