1. Explain the types of AI?

There are three main types of AI: 1. Narrow AI (Weak AI): Performs specific tasks with intelligence. Example: Siri, self-driving cars. 2. General AI: Can perform any intellectual task like a human. Still under research. 3. Super AI: Hypothetical AI that surpasses human intelligence. Can think, reason, and make decisions better than humans.

2. Explain the types of agents in AI?

Types of agents: 1. Simple Reflex Agents: Respond to percepts with condition-action rules. No memory. Example: Thermostat. 2. Model-based Reflex Agents: Maintain internal state to handle partially observable environments. 3. Goal-based Agents: Choose actions based on goals. Use search and planning. 4. Utility-based Agents: Use a utility function to maximize performance by considering multiple goals. 5. Learning Agents: Improve performance based on experience. Have learning and performance elements.

3. Discuss the features of Production System in AI?

Features of a Production System: 1. Simplicity: Uses simple IF-THEN rules for knowledge representation. 2. Modularity: Knowledge is stored in discrete rules, allowing easy updates. 3. Modifiability: Rules can be easily modified to suit different applications. 4. Knowledge-intensive: Focuses on storing and using knowledge efficiently.

4. Discuss some Personal Assistants used through AI?

Examples of AI-based Personal Assistants: 1. Siri (Apple) 2. Google Assistant 3. Amazon Alexa 4. Cortana (Microsoft) They use NLP, machine learning, and voice recognition to assist users with tasks like setting reminders or searching the web.

5. Describe the properties of Search Algorithms?

Key properties of search algorithms: 1. Completeness: Finds a solution if one exists. 2. Optimality: Guarantees the best solution with the least cost. 3. Time Complexity: Measures how fast the algorithm finds the solution. 4. Space Complexity: Measures how much memory the algorithm uses during the search.