

**UNIT-I AGENTS-OVERVIEW****9**

Agent Definition – Agent Programming Paradigms – Agent Vs Object – Aglet – Mobile Agents – Agent Frameworks – Agent Reasoning.

**UNIT-II JAVA AGENTS****9**

Processes – Threads- FIPA – ACL – DIA GAL– Daemons – Components – Java Beans – ActiveX – Sockets – RPCs – Distributed Computing – Aglets Programming – Jini Architecture – Actors and Agents – Typed and proactive messages.

**UNIT-III MULTIAGENT SYSTEMS****9**

Reasoning about Multi agent Interaction between agents – Reactive English Agents Dutch – Combinational Spectrum – Cognitive Agents – Interaction protocols – Agent coordination – Agent negotiation – Agent Cooperation – Agent Organization – Self-Interested agents in Electronic Commerce Applications – Probabilistic Agents – Temporal Agents.

**UNIT-IV INTELLIGENT SOFTWARE AGENTS****9**

Interface Agents – Agent Communication Languages – Agent Knowledge Representation – Agent Adaptability – Belief Desire Intension – Mobile Agent Applications- Argumentaia and Knowledge Sharing Agent.

**UNIT-V AGENTS AND SECURITY****9**

Agent Security Issues – Mobile Agents Security – Protecting Agents against Malicious Hosts – Untrusted Agent – Black Box Security – Authentication for agents – Security issues for Aglets.

**TOTAL : 45 PERIODS****TEXT BOOKS:**

1. Bigus & Bigus, " Constructing Intelligent agents with Java ", Wiley, 1997.
2. Bradshaw, " Software Agents ", MIT Press, 2000.

**REFERENCES:**

1. Russel, Norvig, "Artificial Intelligence: A Modern Approach", Second Edition, Pearson Education, 2003.
2. Richard Murch, Tony Johnson, "Intelligent Software Agents", Prentice Hall, 2000.
3. Gerhard Weiss, "Multi Agent Systems – A Modern Approach to Distributed Artificial Intelligence", MIT Press, 2000.