AI Assignment 5

Different types of environment which agent has to consider are:

* **Discrete / Continuous** − If there are a limited number of distinct, clearly defined, states of the environment, the environment is discrete (For example, chess); otherwise it is continuous (For example, driving).
* **Observable / Partially Observable** − If it is possible to determine the complete state of the environment at each time point from the percepts it is observable; otherwise it is only partially observable.
* **Static / Dynamic** − If the environment does not change while an agent is acting, then it is static; otherwise it is dynamic.
* **Single agent / Multiple agents** − The environment may contain other agents which may be of the same or different kind as that of the agent.
* **Accessible / Inaccessible** − If the agent’s sensory apparatus can have access to the complete state of the environment, then the environment is accessible to that agent.
* **Deterministic / Non-deterministic** − If the next state of the environment is completely determined by the current state and the actions of the agent, then the environment is deterministic; otherwise it is non-deterministic.
* **Episodic / Non-episodic** − In an episodic environment, each episode consists of the agent perceiving and then acting. The quality of its action depends just on the episode itself. Subsequent episodes do not depend on the actions in the previous episodes. Episodic environments are much simpler because the agent does not need to think ahead.