

SECTION-A

I. Write briefly :

- a) Multi-agent environment
- b) Search graph
- c) Heuristic search
- d) Depth first search
- e) Probabilistic reasoning
- f) Bayesian networks
- g) Markov decision process
- h) Policy iteration in Markov decision process
- i) Q-learning algorithm in reinforcement learning
- j) Temporal difference learning.

SECTION-B

2. Discuss the various issues and challenges in Artificial Intelligence.
3. Explain any one game search technique in Artificial Intelligence.
4. Describe the concept of conditional probability in detail.
5. How does utility functions work in Markov decision process?
6. Explain how the Bayesian networks are represented and constructed?

SECTION-C

7. Discuss the searching algorithm with closed and open list. Give suitable example.
8. Differentiate between tree and graph structures.
9. With the help of suitable illustrations, describe the importance of Q-learning algorithm in reinforcement learning.