Answers Of MACHINE LEARNING Q1 to Q15: -

- 1. a) 2 Only
- 2. d) 1, 2 and 4
- 3. a) True
- 4. a) 1 only
- 5. b) 1
- 6. b) No
- 7. a) Yes
- 8. d) All of the above
- 9. a) K-means clustering algorithm
- 10. d) All of the above
- 11. d) All of the above
- 12. The K-means clustering algorithm is sensitive to outliers, because a mean is easily influenced by extreme values.
- 13. K-means is better because it is Relatively simple to implement, Scales to large data sets, Guarantees convergence, Can warm-start the positions of centroids, Easily adapts to new examples, Generalizes to clusters of different shapes and sizes, such as elliptical clusters.
- 14. K-means is non-deterministic in nature due to its random selection of data points as initial centroids. This random selection influences the quality of the resulting clusters. Besides, each run of the algorithm for the same dataset may yield a different output.