# Classification & Clustering (Unit-5)

Total points 10/10

Quizzes

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Division *

- [ ] A
- [x] B
- [ ] C

✓ In which of the following cases will K-means clustering fail to give good results? 1) Data points with outliers 2) Data points with different densities 3) Data points with nonconvex shapes * 1/1

- (•) 1, 2, and 3 ✓
- ( ) 1 and 2

2 and 3

✓ Imagine, you are solving a classification problems with highly imbalanced class. The majority class is observed 99% of times in the training data.Your model has 99% accuracy after taking the predictions on test data. Which of the following is true in such a case? 1)Accuracy metric is not a good idea for imbalanced class problems. 2)Accuracy metric is a good idea for imbalanced class problems. 3)Precision and recall metrics are good for imbalanced class problems. 4)Precision and recall metrics aren't good for imbalanced class problems. 1/1

- (●) 1 and 3 ✓
- ( ) 1 and 4
- ( ) 2 and 3

✓ In ensemble learning, you aggregate the predictions for weak learners, so that an ensemble of these models will give a better prediction than prediction of individual models.Which of the following statements is / are true for weak learners used in ensemble model?1)They don't usually overfit. 2)They have high bias, so they cannot solve complex learning problems. 3)They usually overfit. 1/1

- (●) 1 and 2 ✓
- ( ) 1 and 3
- ( ) 2 and 3

✓ Which algorithm is used for solving temporal probabilistic reasoning? * 1/1

- [ ] Depth-first search
- [x] Hidden markov model ✓
- [ ] Hill-climbing search

✓ Which allows for a simple and matrix implementation of all the basic algorithm? * 1/1

- ○ HMM
- ◉ Restricted structure of HMM ✓
- ○ Temporary model

✓ Where does the Hidden Markov Model is used? 1/1

- ◉ Speech recognition ✓
- ○ Understanding of real world
- ○ Both a & b

✓ What is/are true about kernel in SVM?1. Kernel function map low dimensional data to high dimensional space2. It's a similarity function * 1/1

- ○ 1
- ○ 2
- ◉ 1 and 2 ✓

✓ What does the bayesian network provides? 1/1

- [x] Complete description of the domain
- [ ] Partial description of the domain
- [ ] Complete description of the problem

✓ How the bayesian network can be used to answer any query? 1/1

- [x] Full distribution
- [ ] Joint distribution
- [ ] Partial structure

✓ What is the consequence between a node and its predecessors while creating bayesian network? * 1/1

- [ ] Functionally dependent
- [ ] Dependant
- [x] Conditionally independent
- [ ] Both Conditionally dependant & Dependant