University of Mumbai Examination 2020 under cluster 4 (PCE)

Program: BE Computer Engineering Curriculum Scheme: Rev 2012 Examination: Final Year Semester VIII Course Code: CPE8031 and Course Name: ML

Time: 1 hour Max. Marks: 50

| Q | what is mean by state in reinforcement learning | М |
|---|---|---|
| | An immediate return given to an agent when he or she performs specific | |
| A | action or task. | 0 |
| A | A scenario that an agent has to face. | 0 |
| | It is a strategy which applies by the agent to decide the next action based | |
| A | on the current state. | 0 |
| A | The current situation returned by the environment. | 1 |
| Q | Identifying Email is spam or not is an example of N | М |
| A | classification | 1 |
| A | clustering | 0 |
| A | regression | 0 |
| A | reinforcement learning | 0 |
| | Which of the following are is/are characteristic of reinforcement | |
| | learning? 1. There is no supervisor, only a real number or reward signal | |
| | 2. Sequential decision making 3. Time plays a crucial role in | |
| Q | Reinforcement problems | Л |
| A | Point 1 | 0 |
| A | point 2 | 0 |
| A | point 3 | 0 |
| A | point 1,2,3 | 1 |
| Q | What of the following is type of Hierarchical Clustering | М |
| A | Bottom-Top Clustering (Agglomerative) | 1 |
| A | Dendogram | 0 |
| A | DBscan | 0 |
| A | Kmeans | 0 |
| Q | A or tree graph is a graphical device for displaying clustering result | М |
| A | scattergram | 0 |
| A | dendrogram | 1 |
| A | scree plot | 0 |
| A | icicle diagram | 0 |
| Q | is a clustering procedure characterized by the development of a tre N | M |
| A | Divisive clustering | 0 |
| A | Non-hierarchical clustering | 0 |
| A | Hierarchical clustering | 1 |
| A | Agglomerative clustering | 0 |
| Q | 1 3 2 2 | М |
| A | Lower dimensions. | 1 |

| Can't be used for projecting the data A Same Dimension Q What happens when you get features in lower dimensions using PCA? M The features will still have interpretability only The features will lose interpretability & the features may not carry all information present in data The features will carry all information present in data only The feature will have interpretability and will carry all information Q Dimensionality reduction algorithms are one of the possible ways to M Reduce the computation time required to build a model Reduce efficiency of the system Reduce accuracy of the model Reduce accuracy of the model Reduce the performance of the machine Which algorithm is used for solving temporal probabilistic reasoning? M Hill-climbing search Hidden markov model Depth-first search Breadth-first search Reduce an be used toconditioned on one piece of evidence M Solve queries increase complexity of query decrease complexity of query decrease complexity of query answer probabalistic queries What is the consequence between a node and its predecessors while creating bayesian network? A Functionally dependent Dependant Dependant Dependant Both Conditionally dependant & Dependant What do you mean by generalization error in terms of the SVM? M How far the hyperplane is from the support vectors How accurately the SVM can predict outcomes for unseen data The threshold amount of error in an SVM How many Suport vectors are there What are the advantages of SVM A Avoiding Overfitting by setting large Margin A Voiding Overfitting by setting large margin | A | Higher Deminsions | | 0 |
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| A Avoiding Overfitting by setting large margin | A | | | 0 |
| | | | | 1 |
| A More Spectification in data (| A | More Spectification in data | | 0 |
| A Sensitivity of Kernels (| A | Sensitivity of Kernels | | 0 |
| Q Which of the following terms is not part of SVM Algorithm M | | Which of the following terms is not part of SVM Algorithm | M | |
| a vv | | Support Vector | | 0 |
| A Margin (| A | Margin | | 0 |
| A hyperplane (| A | hyperplane | | 0 |
| A rule antecedent & consequent | A | rule antecedent & consequent | | 1 |
| What is the approach of basic algorithm for decision tree induction? | Q | What is the approach of basic algorithm for decision tree induction? | M | |

| A | Greedy | 1 |
|--------|---|------------|
| A | Top Down | 0 |
| A | Procedural | 0 |
| A | Step by Step | 0 |
| Q | Decision Nodes are represented by | M |
| A | Disks | 0 |
| A | Squares | 1 |
| A | Circles | 0 |
| A | Triangles | 0 |
| Q | Which method can be used to best fit the data in logistic regression? | M |
| A | Least square error | 0 |
| A | Maximum likelihood | 1 |
| A | Minimum likelihood | 0 |
| A | Least mean error | 0 |
| Q | Logistic regression is used when you want to | M |
| | Predict a dichotomous variable from continuous or dichotomous | |
| A | variables. | 1 |
| A | Predict a continuous variable from dichotomous variables. | 0 |
| | | |
| A | Predict any categorical variable from several other categorical variables. | 0 |
| | Predict a continuous variable from dichotomous or continuous | |
| A | variables. | 0 |
| Q | What kind of learning algorithm for "Future stock prices? | M |
| A | Recognizing Anomalies | 0 |
| A | Prediction | 1 |
| A | Generating Patterns | 0 |
| A | Recognition Patterns | 0 |
| Q | Which of the following is not a machine learning algorithm? | M |
| A | SVG | 1 |
| A | SVM | 0 |
| A | Random forest | 0 |
| A | naïve bays | 0 |
| Q | Example of a unsupervised machine learning | M |
| A | Finding customer segments | 1 |
| A | House prices | 0 |
| A | Is it a cat or a dog? | 0 |
| A | How's the weather today? | 0 |
| Q | In the mathematical Equation of Linear Regression $Y = \beta 1 + \beta 2X + \epsilon$, (β |] M |
| A | (X-intercept, Slope) | 0 |
| A | (Slope, X-Intercept) | 0 |
| | (Y-Intercept, Slope) | 1 |
| A A | (slope, Y-Intercept) | 0 |
| Q | What is predicting y for a value of x that is within the interval of points the | ł M |
| A | Regression | 0 |
| A | Extrapolation | 1 |
| A | Intra polation | 0 |
| | | |

| A | Polation | 0 |
|---|---|---|
| Q | How many coefficients are required to estimate a simple linear regressior M | |
| A | 1 | 0 |
| A | 2 | 1 |
| A | 3 | 0 |
| A | 4 | 0 |