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	M	
A	An immediate return given to an agent when he or she performs specific action or task.		0
A	A scenario that an agent has to face.		0
A	It is a strategy which applies by the agent to decide the next action based 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 ___	M	
A	classification		1
A	clustering		0
A	regression		0
A	reinforcement learning		0
Q	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 Reinforcement problems	M	
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	M	
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 resul	M	
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	M	
A	Divisive clustering		0
A	Non-hierarchical clustering		0
A	Hierarchical clustering		1
A	Agglomerative clustering		0
Q	PCA can be used for projecting and visualizing data in_____	M	
A	Lower dimensions.		1

A	Higher Deminsions		0
A	Can't be used for projecting the data		0
A	Same Dimension		0
Q	What happens when you get features in lower dimensions using PCA?	M	
A	The features will still have interpretability only		0
A	The features will lose interpretability & the features may not carry all information present in data		1
A	The features will carry all information present in data only		0
A	The feature will have interpretability and will carry all information		0
Q	Dimensionality reduction algorithms are one of the possible ways to	M	
A	Reduce the computation time required to build a model		1
A	Reduce efficiency of the system		0
A	Reduce accuracy of the model		0
A	Reduce the performance of the machine		0
Q	Which algorithm is used for solving temporal probabilistic reasoning?	M	
A	Hill-climbing search		0
A	Hidden markov model		1
A	Depth-first search		0
A	Breadth-first search		0
Q	Bayes rule can be used to _____conditioned on one piece of evidence	M	
A	Solve queries		0
A	increase complexity of query		0
A	decrease complexity of query		0
A	answer probabalistic queries		1
Q	What is the consequence between a node and its predecessors while creating bayesian network?	M	
A	Functionally dependent		0
A	Dependant		0
A	Conditionally independent		1
A	Both Conditionally dependant & Dependant		0
Q	What do you mean by generalization error in terms of the SVM?	M	
A	How far the hyperplane is from the support vectors		0
A	How accurately the SVM can predict outcomes for unseen data		1
A	The threshold amount of error in an SVM		0
A	How many Suport vectors are there		0
Q	What are the advantages of SVM	M	
A	Avoiding Underfitting by setting large Margin		0
A	Avoiding Overfitting by setting large margin		1
A	More Spectification in data		0
A	Sensitivity of Kernels		0
Q	Which of the following terms is not part of SVM Algorithm	M	
A	Support Vector		0
A	Margin		0
A	hyperplane		0
A	rule antecedent & consequent		1
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	
A	Predict a dichotomous variable from continuous or dichotomous variables.		1
A	Predict a continuous variable from dichotomous variables.		0
A	Predict any categorical variable from several other categorical variables.		0
A	Predict a continuous variable from dichotomous or continuous 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 $Y = \beta1 + \beta2X + \epsilon$, ($\beta1$	M	
A	(X-intercept, Slope)		0
A	(Slope, X-Intercept)		0
A	(Y-Intercept, Slope)		1
A	(slope, Y-Intercept)		0
Q	What is predicting y for a value of x that is within the interval of points th	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 regression M	
A	1	0
A	2	1
A	3	0
A	4	0