Sanjay Ghodawat University, Kolhapur

2020-21

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EXM/P/09/00

Year and Program:	School of Commerce and Management	Department:
Course Code: CST310	Course Title: Machine Learning	Semester: VI
Day and Date:	End Semester Examination	Time:2 Hrs. Max Marks:50

Instructions: 1) All Questions are compulsory.

Q.1		Solve the following (any Two)	Marks	Bloom's Level	CO
	a)	Explain logistic regression supervised learning algorithm and its applications.	8	L2	CO2
	b)	Explain feature reduction technique of principal component analysis (PCA) with specific steps.	8	L2	CO2
	c)	Describe linear regression implementation using gradient descent.	8	L2	CO2
Q.2		**Solve the following (any two)**			
	a)	Differentiate between following classifiers with respect to their working i) Naïve bayes classifier ii) Decision Tree classifier.	8	L4	CO3
	b)	Differentiate between following clustering technique with suitable algorithm i) Partition based clustering algorithm ii) Hierarchical clustering algorithms.	8	L4	CO3
	c)	Explain working of support vector machine (SVM) as binary and multiclass classifier.	8	L2	CO3
Q.3		**Solve the following (any two)**			
	a)	Describe use of learning curves for evaluation of learning algorithms w.r.t area under curve (AUC) and receiver operation characteristics (ROC).	9	L2	CO1
	b)	Differentiate between i) Feed forward neural network (FFNN). ii) recurrent neural network (RNN).	9	L4	CO4
	c)	Demonstrate working of convolutional neural network (CNN) in image processing with suitable diagram.	9	L3	CO3

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