			Marks: 30	Medias: 00	the same.	ment in [04]		[04]	3	[08]											lary in	ol an	[06]			[80]										50.00	usiiig	
Institute of Technology, Nirma University	Class Test, February 2010 ال SE MTech CSE (INS), MTech CSE (NT), Semester II	100	nitial [] Maximum Marks: 30	Maxillium	<ol> <li>Attempt all questions in sequence.</li> <li>Figures to the right indicate full marks.</li> <li>Make necessary assumptions wherever needed and clearly indicate the same.</li> </ol>	logical develop	Jugicai acrese			rganization:	ds of dollars)										Here, x indicates experience of an employee in years while y indicates salary in	thousands of dollars. Using simple linear regression, predict the salary of		optimization pro	( x c : + + 2) = 0	in machine learning: b) What is overfitting? How can regularization be used to limit overfitting? b) The following training data:	Stolen?	Yes	ONI	Yes	Yes	No	Yes	No	No	TES TES	class attribute. Classily a Ked Domestic SOV using	
	Class Test, February 2010 , MTech CSE (INS), MTech CSE (	3CS1E35 – Machine Learning	Supervisors minda with date		ks. ver needed and	ary.	g in the technis	mples:	d learning	yees of some c	y (salary in thousands of dollars)	58	65	72	36	43	09	06	20	80	in years while	regression, pre		ples. nt in solving o	<del>1</del>	n be usea to n	Origin	Domestic	Domestic	Domestic	Imported	Imported	Imported	Domestic	Imported	Imported	lassify a Ked	
hnology,	est, Febri CSE (INS),	5 – Machin			sequence. ate full marl ions wherev	ever necess	ne Learning le.	priate exa	ısupervised ya	g to employ	e) y (s										n employee	ole linear	years.	riate exam! Iient desce		gularızatıo	Type	Sports	Sports	Sports	Sports	SUV	SUV	SUV	SUV	Sports	ttribute. C	
te of Tec	Class Te	, 3CS1E35			estions in s right indice	tches wher	of Machir	with appro	ing and un	ı regressio ı pertainin	x (years of experience)	200	×   c	13	2 6	9	11	21	-	16	ience of an	Using simp	ence is 10	ith approprince of grad		fow can re	Color	Red	Red	Red	Yellow	Yellow	Yellow	Yellow	Red			
Institu	M Tech CS	M: recir: 62	NO 19 MECOZ	ır	Instructions: 1. Attempt all questions in sequence.  2. Figures to the right indicate full marks.  3. Make necessary assumptions wherever	4. Draw neat sketches wherever necessary	What is the significance of Machine Learning in the technological according to the significance of Machine Learning in the technology.	Compare the following with appropriate examples:	(a) Supervised learning and unsupervised learning	(b) Classification and regression. Consider following data pertaining to employees of some organization:	x (years o										x indicates experi	ands of dollars. U	employee whose experience is 10 years.	Answer the following with appropriate examples.	a) what is the resemble in machine learning?	at is overfitting? F	Assume joilowing cramms determined to Colo	Lyampic no.	2	3	4	n v	0 1	. 8	6	10	er "Stolen?" as the	naïve-Bayes classifier.
			Roll/Exam No	Time: 1 Hour	Instruction		Q.1 Whati	preser O.2 Compa		(b)											Here,	thouse	emplo	Q.4 Answe	a) wiik in mac		Q.5 Assum										Consider	naïve-E