USN	:	1	D	A								**Sub Code: 18CS62**

Dr. Ambedkar Institute of Technology

(An Autonomous Institution, Aided by Government of Karnataka
Affiliated to Visvesvaraya Technological University, Belgaum & Approved by AICTE, New Delhi)
BDA Outer Ring Road, Near Jnana Bharathi Campus, Mallathahalli, Bengaluru-560056, Karnataka

Department of Computer Science & Engineering
Sixth Semester B.E. Degree (Autonomous) Continuous Internal Evaluation (CIE – III)
2021

Date : 14/07/2021	**Sub. Title : Machine Learning**	**Timings : 1.30-2.30**
Day : Monday	**Sub. Code :18CS62**	**Time duration : 60 Mins**
Branch : CSE		**Max marks : 25**
Semester : 6	**CIE – III**	**Staff in-charge:** **Asha K N** **Asha Rani K P**

Q. No.		**Note : Answer ALL the questions**	Marks	Course Outcome	**Blooms Level**
1.	a)	Explain the method of comparing two algorithms. Justify with Paired ***t*** test.	**10 M**	**CO4**	**L3**
2.	a)	Explain the K – nearest neighbour algorithm for approximating a **discrete – valued** function $f : \Re^n \rightarrow V$. with pseudo code.	**5 M**	**CO3**	**L3**
	b)	Explain CADET System using Case based reasoning.	**5 M**	**CO4**	**L3**
OR					
	c)	Explain Sample error, True error and Confidence intervals with example.	**5 M**	**CO3**	**L3**

Faculty Incharge:
Asha K N
Asha Rani K P

Dr. Siddaraju
Dean(A),HOD, CSE

QUIZ	**Note : Answer ALL the questions**							**10X0.5=05 Marks**
1.	Which of the following distance metric can be used in k-NN?							
	A	Manhattan Distance	B	Hamming Distance	C	Euclidean Distance	D	All of the above
2.	The difference between **Estimation bias** and **inductive bias** of a learner is							
	A	Estimation = numerical quantity, Inductive bias = a set of assertions.	B	Estimation = a set of assertions, Inductive bias = numerical quantity.	C	Estimation = a set of assertions, Inductive bias = Alphanumerical value.	D	None of the above
3.	Given number of instances in the sample ***n=65*** and number of instances misclassified ***r=12***, find the true error- ***$error_D(h)$?***							
	A	0.18	B	0.3	C	5.4	D	None of the above
4.	When we say that **Y** is an ***unbiased estimator*** for ***p***							
	A	If the estimation bias is zero	B	If the estimation bias is one	C	If the estimation bias is infinity	D	None of the above
5.	Which of the following will be Euclidean Distance between the two data point A(1,3) and B(2,3)?							
	A	1	B	2	C	4	D	8
6.	Locally weighted linear regression is a_____							
	A	Supervised Learning Algorithm.	B	Unsupervised Learning Algorithm.	C	Reinforcement Learning Algorithm	D	All of the above
7.	Instance based learning is also called							
	A	Lazy learning	B	Memory-based Learning	C	Both a & B	D	None of the above
8.	Radial Basis Function (RBF) networks have_____ layers							
	A	One	B	Two	C	Three	D	Four
9.	What does the normal distribution look like?							
	A	A bell	B	A circle	C	A square	D	A straight line
10.	Which of the following denotes the expected value of a random variable?							
	A	It is a value that has the highest probability of occurring.	B	It is the mean value over an infinite number of observations of the variable.	C	It is the largest value that will ever occur.	D	It is most common value over a finite number of observations of the variable.