

G. H. Raisoni College of Engineering, Nagpur
(An Autonomous Institution)
2020-2021 EVEN TERM
CAE-2 EXAMINATION SUMMER-2021 (ONLINE MODE)
Fourth Semester B.Tech. Artificial Intelligence
Machine Learning Algorithms

Time: 1 hr.]**[Max. Marks: 15**

- 1) [CO1/CO2/CO...] indicates the question related to specific course outcome.
- 2) All questions carry marks as indicated
- 3) Assume suitable data wherever necessary.
- 4) Due credit will be given to neatness and adequate dimensions.
- 5) Illustrate your answer wherever necessary with the help of neat sketches.
- 6) Use of non-programmable calculator is permitted.

CO3 a) what is Bayes Theorem?**5M**

A man is known to speak truth 2 out of 3 times. He throws a die and reports that the number obtained is a four. Find the probability that the number obtained is actually a four.

b) What is principal components analysis?.**5 M**

Consider following Data and solve using PCA

X	Y
6.7	8.3
4	5.5
8.3	3.2
5.2	6.0
7.4	3.4
9.1	5.1
7	4.8

CO5 a) Illustrated k-Means clustering algorithms using following data.**5M**

A_1	A_2
6.8	12.6
0.8	9.8
1.2	11.6
2.8	9.6
3.8	9.9
4.4	6.5
4.8	1.1
6.0	19.9
6.2	18.5
7.6	17.4
7.8	12.2
6.6	7.7
8.2	4.5
8.4	6.9
9.0	3.4
9.6	11.1

***** Stay Home Stay Safe *****