EE871 Reg.No. : ..... Marks :

ACADEMIC SESSION January-May 2020

End Semester Examination (Partial)

Course Code	: EE871	Course Title	: **Machine Learning**
Credits	: 3-1-2 : 5	Instructor	: Dr. Jora M. Gonda
Weight	: 20%	Marks	: $5 \times 7 = 35$

1. Die name (H_M) and $\Pr(H_M \mid \underline{x})$; $H_M \in \mathscr{H} = \{H_4, H_6, H_8, H_{12}, H_{20}\}$ and $\underline{x} = [4, 2, 4, 7, 5]$

Die name (H_M)	$\Pr(H_M \mid \underline{x})$

2. $\Pr(\text{like}|\underline{x})$, $\underline{x}$ = [round, thick, grey, medi, dark]=.....

3. The filled Table is:

	Predicted		
Actual	0	1	Total
0	217		263
1	26		252
Total	243	272	515

i) Sensitivity	ii) F1-Score

4. List of indices used for deciding optimal threshold in classification:

   i)..... ii).....

   iii)..... iv).....

   v).....

5. The confusion matrix is:

$p \geq 0.7$	Predicted		
Actual	RED	BLUE	Total
RED			
BLUE			
Total			

6. The Entropies are:

Outlook	Temperature	Humidity	Wind

   and the root node is: .....

7. The results are:

   - The null Hypothesis (H_0) is :
   - The Alternative Hypothesis ($H_0 1$) is :
   - The test-statistic is (formula) :
   - Value of the test-statistic is :
   - Threshold on Test statistic is :
   - Conclusion about the Hypothesis is :