MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOG, BHOPAL

Department of Computer Science & Engineering

B.Tech. (CSE) VI th Sem.

Lab Assignment – 7 (CSE1 date:30-03-22)

Subject: **Data Warehouse & Date Mining Lab** **Sub Code: CSE-326** **Due Date – 05/03/22**

Lab Assignment on Decision Tree Algorithms

Q1. Write a program to construct Decision Tree based on ID3 algorithm.

Q2. Write a program to construct Decision Tree based on C4.5 algorithm.

Use the dataset that we discussed in class (given below) having 14 tuples and 04 attributes along with 01 target attribute.

Show all the parameters like, Info_Gain, Gain_Ratio etc for each attribute in output also.

Class-Labeled Training Tuples from the *AllElectronics* Customer Database

RID	*age*	*income*	*student*	*credit_rating*	*Class: buys_computer*
1	youth	high	no	fair	no
2	youth	high	no	excellent	no
3	middle_aged	high	no	fair	yes
4	senior	medium	no	fair	yes
5	senior	low	yes	fair	yes
6	senior	low	yes	excellent	no
7	middle_aged	low	yes	excellent	yes
8	youth	medium	no	fair	no
9	youth	low	yes	fair	yes
10	senior	medium	yes	fair	yes
11	youth	medium	yes	excellent	yes
12	middle_aged	medium	no	excellent	yes
13	middle_aged	high	yes	fair	yes
14	senior	medium	no	excellent	no

Check your implementation for new input,

[age= youth, income= low, student= no, credit= excellent] = [Buys Computer = ?]

Submission mail format: - scholar number_branch_section_assignment number

Example: - 203112007_CSE_1_ASSIGNMENT 7

Submission mail ID: - cse326manit@gmail.com

For each assignment write in single file, 1. Assignment problem, 2. Approach used, 3. Code with proper comments, 4. Description of code, 5. Output snapshots. also attach program file (code file) in email.

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Subject Coordinator