**BCDE214 Database Administration Assignment 2– Portfolio**

**Appendix A Views, Triggers, Stored Procedures and Indexes**

**Due Date:** Friday 18 September; 11:59 p.m. **(Total Marks 25)**

**Write scripts** to perform the following tasks. You should also provide scripts that test your scripts.

**Views (Marks 1.5 \* 2 =3)**

Write scripts to create the following views:

* All lots of cattle sold in 2020. Include the names of the buyers, sellers, agents and auctioneers, the number and type sold, and the price per lot. Do not include passed in lots.



* All lots of sheep sold in 2020. Include the names of the buyers, sellers, agents and auctioneers, the number and type sold, and the price per lot. Do not include passed in lots.



**Triggers (Marks 2.5 \* 2 =5)**

Write scripts to create the following triggers and design changes:

* When a lot is sold, there needs to be a field in the AuctionClientAtAuction table that is automatically updated with the total value the Client has purchased at the auction. There should also be a total for each AuctionClient. There should be similar updates for the clients acting as sellers.



* A counter of how many auctions a client has attended in the last year.



**Stored Procedures (Marks 2 \* 6 =12)**

Write stored procedure(s) that will:

* Given a date, auction number, and whether there are a cattle and/or sheep auction, create the appropriate auctions.
* Set up and load the clients for a provided auction number.
* Load provided presales data
* Load provided post sales data.

Sample data has been provided. It would be expected that the input files used by your stored procedures would be .csv. Remember this is **sample** and not live data to be loaded. You probably need to think about having development and production copies of your database.

Write stored procedures that will

* Calculate the total value of all lots ever sold by an input seller. This should either be cattle, sheep or both, depending on user input.
* A similar stored procedure for buyers.

**Indexes (Marks 1.5 + 1.5 + 2 = 5)**

Write scripts to create the following indices:

* An index on the CattleLot table to speed up queries for agents on auction days.
* An index on the SheepLot table to speed up queries for agents on auction days.
* An index useful for tracking particular clients attending auctions.

There also needs to be a script written to rebuild the indices.