Question 1

Go through the requirement below & draw out the conceptional model. Below is the biz requirement or business processs

1. The Area being Modelled is :-

2. A Online Banking.

3.

4. A. STATEMENT OF USER REQUIREMENTS :

5. i. A Customer must have a valid User Id and password to login to the system

6. ii. If a wrong password is given thrice in succession, that account will be locked and the customer will not be able to use it.

7. When an invalid password is entered a warning is given to the user that his account is going to get locked.

8. iii. After the valid user logs in he is shown the list of accounts he has with the bank.

9. iv. On selecting the desired account he is taken to a page which shows the present balance in that particular account number

10. v. User can request details of the last ‘n’ number of transactions he has performed.

11. A report can also be taken of this.

12. vi. User can make a funds transfer to another account in the same bank. User is provided with a transaction password

13. which is different from the login password.

14. vii. User can transfer funds from his account to any other account with this bank. If the transaction is successful a

15. notification should appear to the customer, in case it is unsuccessful, a proper message should be given to the

16. customer as to why it failed.

17. viii. User can request for cheque book/change of address/stop payment of cheques

18. ix. User can view his monthly as well as annual statements. He can also take print out of the same.

19.

20. That is the end of the Functional Requirements for the Database.

21.

22. A GLOSSARY OF THE THINGS OF INTEREST INCLUDES ...

23. 1. Accounts

24. 2. Addresses

25. 3. Customers

26. 4. Transactions

Question 2:

Go through the business overview & design the Conceptional data model

The Area being Modelled is :-

Subject: Car / Vehicle Sales (Simple)

Question: Gofar Travel Vehicles sells new and used recreational vehicles.

When new vehicles arrive at Gofar Travel Vehicles from the manufacturer, a new vehicle record is created.

Included in the new vehicle record is the following information:

• vehicle identification number (VIN)

• name

• model

• year

• name of manufacturer

• cost or amount paid to the manufacturer.

When a customer arrives at Gofar Travel Vehicles, he/she works with a salesperson to discuss a vehicle purchase.

The customer can purchase a new or used vehicle.

On the new vehicle the customer can add options like a microwave, special lighting, fridge, stove, better seats etc.

When the purchase has been agreed to, a sales invoice is completed by the salesperson.

The invoice summarizes the details of the purchase.

It will include all customer information, information on the vehicle being purchased and any options (if any),

information on the trade-in vehicle and the trade-in dollar amount allowed (if a trade in exists).

If the customer requests dealer-installed options, they will be listed on the invoice as well as the price.

The invoice also summarizes the final price, plus any applicable taxes (7%) and license fees.

The transaction concludes with a customer signature on the sales invoice.

Customers are assigned a customer ID when they make their first purchase from Gofar Travel Vehicles.

Name, address, and phone number are recorded for the customer.

If there is a trade-in vehicle it is described by a serial number, make, model, and year.

Dealer installed options are described by an option code, description, cost from the manufacturer and selling price.

Each invoice will list just one customer and one vehicle sold.

It is rare but if a customer wants 2 vehicles, then it requires two invoices be prepared.

A person does not become a customer until they purchase a vehicle.

Over time, a customer may purchase a number of vehicles from Gofer Travel Vehicles.

Every invoice must be filled out by only one salesperson.

A new salesperson may not have sold any vehicles, but experienced salespeople have sold many vehicles.

A customer may decide to have no options added to the vehicle, or may choose to add many options.

The optional equipment (stove, fridge, fire extinguisher) is stored in the warehouse.

An option like a fire extinguisher can be installed on different types of vehicles.

A customer may trade in only one vehicle toward the purchase of a new vehicle.

The trade in vehicle may be sold later to another customer, who later trades it in on another Gofar Travel Vehicle.

The same vehicle over time can be sold several times. 1)

Design the database to handle the above. 1. Relationships 2. Mapping Entities to table 3. Relation Schema

4. Relation Instance 5. Entity Relationship Diagram 6. ERD representation of Relational Schema 7. Normalization.