a)

1. Interview the shop manager

2. Interview the mechanics

3. Obtain a general description of company operations

4. Create a description of each system process

5. Create a conceptual model using ER diagrams

6. Draw a data flow diagram and system flowcharts

7. Normalize the conceptual model

8. Create the file (table) structures

9. Load the database

10. Create the application programs

11. Test the system.

b) The modules that should be included are external and internal forces. They include updates, inserts, deletes, queries, and reports as well as module interfaces.

c) Data Dictionary is helpful for database so we can be able to put the needed data and avoid repetition.

Here are some ways to look at it.

Define entities, attributes, primary keys, and foreign keys. (The foreign keys serve as the basis for the relationships among the entities).  
Make decisions about adding new primary key attributes to satisfy end-user and processing requirements.   
Make decisions about the treatment of composite and multivalued attributes.   
Making decisions about adding derived attributes to satisfy processing requirements.   
Make decisions about placement of foreign keys in 1:1 relationships  
Avoid unnecessary ternary relationships   
Draw the corresponding ER Diagram  
Normalize the entities   
Include all data element definitions in the data dictionary   
Make decisions about standard naming conventions   
d) n/a

e) The best way to conceptual design is decentralized design. Because it is capable of sorting out all the entities with its queries and subqueries.

e) n/a