**Backup & Security**

1. What is the difference between a Media Failure and a System Failure?
2. What is the most common form of database backup?
3. What is the performance impact of performing a database dump?
4. What are the most common Database Security issues?
5. Explain the principle of least privilege.
6. List 3 of the recommended guidelines for password creation.
7. If you are building an application that required users to have a password, what

should be done to those passwords before they are stored in the database?

**General Theory**

1. Outline the principles of open platforms, including browsers and databases
2. List the processes associated with the creation of entities, attributes, and in populating fields, using both software solutions and script- based input
3. Describe data-modelling techniques to design a database
4. Outline the steps in database design, modelling and implementation
5. Describe the internet operation related to web servers and clients
6. Identify the naming conventions appropriate to database design
7. Identify security restrictions on servers, incorporating some theoretical concepts
8. Describe best practice communication, and accessibility, for audiences with special needs.
9. Explain the process of data analysis, particularly in determining data types and data structures, query and report design
10. Describe the data modelling related to developing the conceptual data model
11. Explain how data redundancy is identified
12. Describe database management system (DBMS) fundamentals, particularly during the design phase
13. Outline the functions and features of data types, and data structures
14. Describe the functions, and features, of databases
15. Describe logical design concepts, particularly those related to designing data structures, queries screens and reports