TUTORIAL – WEEK 2

1. Describe, using appropriate examples, the constraint called Referential Integrity
2. The main objective for the three-level database architecture (comprising of an external, a conceptual and an internal level) is to provide data independence. Explain what is meant by data independence and its importance in a database environment
3. Explain the difference between database schema and database state?
4. Super key, candidate key and primary key are used to identify tuples in a relation. Briefly explain the difference between these three types of keys.
5. Differentiate between entity integrity constraints and referential integrity constraints.
6. The ANSI-SPARC model of a database identifies three distinct levels at which data items can be described. List and explain each level.
7. Consider the following table:

Consultant ID	Consultant Name	Consultant Category	ProjNo	ProjName	ProjLoc	Fee Rate	Consultancy Hrs
129	James Carager	1	12	Apolo	Dubai	500	40
127	Sarah James	2	12	Apolo	Dubai	700	30
129	James Carager	1	9	Terra	Mauritius	500	50
131	Cindy Shraffer	3	9	Terra	Mauritius	1000	20
145	Sheila Ramah	1	10	Riviera	Mauritius	500	35
131	Cindy Shraffer	3	10	Riviera	Mauritius	1000	30
199	Girish Mitoo	2	10	Riviera	Mauritius	700	10

a) Give the domain for the following attributes:

- ConsultantName
- FeeRate
- ConsultancyHrs

b) Using the table CONSULTANCY as example differentiate between superkeys, candidate keys and primary key. Show how primary keys are obtained from the list of superkeys and candidate keys.