***Chapter 5: Advanced data modeling***

1. Disjoint subtypes are also known as \_\_\_\_\_\_ subtypes.

*ANSWER:*  ***non-overlapping***

1. Specialization is based on grouping \_\_\_\_\_\_ characteristics and relationships of the subtypes.

*ANSWER:* ***unique***

1. Usually, a data modeler uses a natural identifier as the \_\_\_\_\_\_ of the entity being modeled, assuming that the entity has a natural identifier.

*ANSWER:* ***primary* key**

1. Unique values can be better managed when they are \_\_\_\_\_\_, because the database can use internal routines to implement a counter-style attribute that automatically increments values with the addition of each new row.

*ANSWER:* ***numeric***

1. Composite primary keys are particularly useful as identifiers of composite entities, where each primary key combination is allowed \_\_\_\_\_\_ in the M:N relationship.

*ANSWER:* ***once***

1. Composite keys are useful as identifiers of weak entities, where the weak entity has a strong \_\_\_\_\_\_ relationship with the parent entity.

*ANSWER:* ***identifying***

1. One practical advantage of a (n) \_\_\_\_\_\_ key is that because it has no intrinsic meaning, values for it can be generated by the DBMS to ensure that unique values are always provided.

*ANSWER:* ***surrogate***

1. While using a surrogate key, one must ensure that the candidate key of the entity in question performs properly through the use of the “\_\_\_\_\_\_” and “not null” constraints.

*ANSWER:* ***unique index***

1. From a data modeling point of view, \_\_\_\_\_\_ data refer to data whose values change over time and for which one must keep a history of the data changes.

*ANSWER:* ***time-variant***

10. The main concern with redundant relationships is that they remain \_\_\_\_\_\_ across the model.

*ANSWER:* ***consistent***