1. Snapshot isolation is a particular type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ scheme.  
a) Concurrency-control  
b) Concurrency-allowance  
c) Redirection  
d) Repetition-allowance

Answer: a  
Explanation: It has gained wide acceptance in commercial and open-source systems, including Oracle, PostgreSQL, and SQL Server.

2. Snapshot isolation is used to give  
a) Transaction a snapshot of the database  
b) Database a snapshot of the transaction  
c) Database a snapshot of committed values in the transaction  
d) Transaction a snapshot of the database and Database a snapshot of committed values in the transaction

Answer: d  
Explanation: The data values in the snapshot consist only of values written by committed transactions.

3. Lost update problem is  
a) Second update overwrites the first  
b) First update overwrites the second  
c) The updates are lost due to conflicting problem  
d) None of the mentioned

Answer: a  
Explanation: Lost update problem has to be resolved.

4. Under first updater wins the system uses a \_\_\_\_\_\_\_\_\_\_ mechanism that applies only to updates.  
a) Close  
b) Read  
c) Locking  
d) Beat

Answer: c  
Explanation: Reads are unaffected by this, since they do not obtain locks.

5. When a transaction Ti attempts to update a data item, it requests a \_\_\_\_\_\_\_\_\_ on that data item.  
a) Read lock  
b) Update lock  
c) Write lock  
d) Chain lock

Answer: c  
Explanation: Reads are unaffected by this, since they do not obtain locks.

6. Each of a pair of transactions has read data that is written by the other, but there is no data written by both transactions, is referred to as  
a) Read skew  
b) Update skew  
c) Write lock  
d) None of the mentioned

Answer: d  
Explanation: Write skew is the issue addressed here.

7. An application developer can guard against certain snapshot anomalies by appending a \_\_\_\_\_\_ clause to the SQL select query.  
a) For update  
b) For read  
c) For write  
d) None of the mentioned

Answer: a  
Explanation: Adding the for update clause causes the system to treat data that are read as if they had been updated for purposes of concurrency control.

8. Evaluate the CREATE TABLE statement:

CREATE TABLE products

(product\_id NUMBER(6) CONSTRAINT prod\_id\_pk PRIMARY KEY, product\_name VARCHAR2(15));

Which statement is true regarding the PROD\_ID\_PK constraint?  
a) It would be created only if a unique index is manually created first  
b) It would be created and would use an automatically created unique index  
c) It would be created and would use an automatically created no unique index  
d) It would be created and remains in a disabled state because no index is specified in the command

Answer: b  
Explanation: Syntax: create table table\_name(name constraint).

9. Evaluate the following CREATE SEQUENCE statement:

CREATE SEQUENCE seq1

START WITH 100

INCREMENT BY 10

MAXVALUE 200

CYCLE

NOCACHE;

The sequence SEQ1 has generated numbers up to the maximum limit of 200. You issue the following SQL statement:  
SELECT seq1.nextval FROM dual;  
What is displayed by the SELECT statement?  
a) 1  
b) 10  
c) 100  
d) an error

Answer: a  
Explanation: Sequence is used to generate a series of values.

10. In which scenario would you use the ROLLUP operator for expression or columns within a GROUP BY clause?  
a) To find the groups forming the subtotal in a row  
b) To create group-wise grand totals for the groups specified within a GROUP BY clause  
c) To create a grouping for expressions or columns specified within a GROUP BY clause in one direction, from  
right to left for calculating the subtotals  
d) To create a grouping for expressions or columns specified within a GROUP BY clause in all possible  
directions, which is cross-tabular report for calculating the subtotals

Answer: c  
Explanation: Sequence is used to generate a series of values.