1. In ordered indices the file containing the records is sequentially ordered, a \_\_\_\_\_\_\_\_\_\_\_ is an index whose search key also defines the sequential order of the file.  
a) Clustered index  
b) Structured index  
c) Unstructured index  
d) Nonclustered index

Answer: a  
Explanation: Clustering index are also called primary indices; the term primary index may appear to denote an index on a primary key, but such indices can in fact be built on any search key.

2. Indices whose search key specifies an order different from the sequential order of the file are called \_\_\_\_\_\_\_\_\_\_\_ indices.  
a) Nonclustered  
b) Secondary  
c) All of the mentioned  
d) None of the mentioned

Answer: c  
Explanation: Nonclustering index is also called secondary indices.

3. An \_\_\_\_\_\_\_\_\_\_\_\_ consists of a search-key value and pointers to one or more records with that value as their search-key value.  
a) Index entry  
b) Index hash  
c) Index cluster  
d) Index map

Answer: a  
Explanation: The pointer to a record consists of the identifier of a disk block and an offset within the disk block to identify the record within the block.

4. In a \_\_\_\_\_\_\_ clustering index, the index record contains the search-key value and a pointer to the first data record with that search-key value and the rest of the records will be in the sequential pointers.  
a) Dense  
b) Sparse  
c) Straight  
d) Continuous

Answer: a  
Explanation: In a dense nonclustering index, the index must store a list of pointers to all records with the same search-key value.

5. In a \_\_\_\_\_\_\_\_\_\_ index, an index entry appears for only some of the search-key values.  
a) Dense  
b) Sparse  
c) Straight  
d) Continuous

Answer: a  
Explanation: Sparse indices can be used only if the relation is stored in sorted order of the search key, that is if the index is a clustering index.

6. Incase the indices values are larger, index is created for these values of the index. This is called  
a) Pointed index  
b) Sequential index  
c) Multilevel index  
d) Multiple index

Answer: c  
Explanation: Indices with two or more levels are called multilevel indices.

7. A search key containing more than one attribute is referred to as a \_\_\_\_\_\_\_\_\_ search key.  
a) Simple  
b) Composite  
c) Compound  
d) Secondary

Answer: b  
Explanation: The structure of the index is the same as that of any other index, the only difference being that the search key is not a single attribute, but rather is a list of attributes.

8. In B+ tree the node which points to another node is called  
a) Leaf node  
b) External node  
c) Final node  
d) Internal node

Answer: d  
Explanation: Nonleaf nodes are also referred to as internal nodes.

9. Insertion of a large number of entries at a time into an index is referred to as \_\_\_\_\_\_\_\_\_\_ of the index.  
a) Loading  
b) Bulk insertion  
c) Bulk loading  
d) Increase insertion

Answer: c  
Explanation: Bulk loading is used to improve efficiency and scalability.

10. While inserting the record into the index, if the search-key value does not appear in the index.  
a) The system adds a pointer to the new record in the index entry  
b) The system places the record being inserted after the other records with the same search-key values  
c) The system inserts an index entry with the search-key value in the index at the appropriate position  
d) None of the mentioned

Answer: c  
Explanation: If the index entry stores pointers to all records with the same search key value, the system adds a pointer to the new record in the index entry.