

1. What is vertical and horizontal partitioning of database tables? What is the difference to allocation!
2. Insert the following numbers one-by-one into a B-Tree of the level 2:
20,40,10,30,15,35,7,26,18,22,5
3. Compare the resource consumption of B+- and standard bitmap indices for the following data:
 - (a) # tuples: 5000000; # key values: 100; resource consumption for one TID in byte: 1;
 - (b) # tuples: 5000000; # key values: 3; resource consumption for one TID in byte: 1;
 - (c) # tuples: 5000000; # key values: 3; resource consumption for one TID in byte: 4;
4. Define different approaches of storing zip codes in bitmap indices. Integrate range and interval based bitmap indices.
5. What is a Gridfile? How is it created? Which are its advantages compared to tree based approaches?
6. Describe the operating mode of kd-Trees.
7. Define the properties of an *ideal* index for data warehouses.