These are questions to test your understanding of the material. Some of these questions may appear on an exam.

1. What is the primary objective of extensible hashing? Briefly explain how this objective is achieved.

2. State the similarities and differences between extensible hashing and hashing with separate chaining.

3. How is the directory (or root) of an extensible hashing is organized? What does each entry of the directory represent?

4. Successively insert the records with the following long integer keys into the extensible hash table below in which each leaf node can hold up to 4 data elements:

```
100100, 000000, 111010, 111011, 111100
```

00	01	10	11

(2)	(2)	(2)	(2)
000100	010100	100000	111000
001000	011000	101000	111001
001010		101100	
001011		101110	