CS101 updated VU Final term Past Paper Last 5 Year
Created by: VU APEX Campus Teachers Team

Questions:

1. **What is the purpose of using a sentinel in the context of sequential files, and how does it contribute to detecting the end-of-file (EOF)?**

   Answer: The sentinel in sequential files serves as a special record placed at the end of the file. It aids in identifying the EOF during file processing. The operating system utilizes information from its directory system to recognize where the file terminates, as it knows the sectors containing the file. This allows for efficient detection of the end of a sequential file.

2. **In the context of indexed files, how does the index facilitate the retrieval of specific records, and where is the index typically stored?**

   Answer: An index for an indexed file contains a list of keys along with entries indicating the location of the corresponding records. To find a specific record, one locates the identifying key in the index and retrieves the block of information stored at the associated location. The file's index is usually stored as a separate file on the same mass storage device as the indexed file, and it is transferred to main memory before file processing for easy accessibility.

3. **What role does hashing play in data retrieval, and how does it differ from