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Bhola

CSC 2310

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Homework 1 - Page 151: 2, 3, 4, 5, 7, 8, 11, 13, 14, 21, & 23

2. Batch processing requires a computer operator as an intermediary between the computer and user. As such, the user cannot do anything else once an operation is submitted to the operator until the process is fully complete. Interactive processing uses remote terminals to allow users to carry on a dialogue while the program is executing.

3. R, S, T, X, Y, Z.

4. Embedded systems are dedicated to a particular use, are designed to last a long length of time on a limited battery, meet demanding real-time deadlines, and operate completely or almost completely independently without human interaction while PCs can be utilized for many tasks, often require a continuous power source or run on an extremely limited battery in comparison to embedded systems, and require continuous human operation in most cases.

5. A multitasking operating system is an operating system that can execute many tasks simultaneously from one user.

7. An example of application software would be Microsoft Office Excel which is often used in accounting as it provides ready-made spreadsheets for users. Two examples of utility software are 7-Zip and Windows Media Player. The 7-Zip program allows compression and decompression of files while Windows Media Player and execute various media file types including .mp3 and .wav.

8a. User interfaces allow humans users to easily communicate with the OS by translating human input into machine output and vice versa.

8b. The kernel contains all of the internal software components that perform basic computer installations and operations.

11. A process table contains process entries showing the memory area assigned to the process, process priority, and whether the process is ready or waiting.

13. Main memory is the actual memory space that a computer has while virtual memory is fictional memory created when the memory manager pages program between the main memory and mass storage.

14. 524,288 pages

21. 50 million instructions

23. 25 milliseconds; 250 million instructions