Assignment Questions

Q1. State and explain Amdahl's law for measuring speed up performance of parallel systems. Also, list the outcomes of analysisi of the Amdahl's law.

Q2. Explain Flynn's architecture in details.

Q3. What happed when threads is created. Explain the mapping models of threading.

Q4. Explain different types of decomposition of threads. Elaborate on each type of decomposition.

Q5. Differntiate b/w multicore-architecture from hyper-threading technology.

Q6. Write a "Hello world" program using pthreads.

Q7. Illustrate the outcome of thread creation.

Q8.Compare and contrast the multiprocessors and multi-core processors.

Q9.Give a brief on parallel programming patterns with their relationship and types of problems of each pattern.

Q10. How is the error diffusion algorithm used to solve the problem of printing an 8-bit grayscale image to a black and white printer? Also elaborate on alternate approaches for the same.