

MA721 Introduction to scalable systems

Assignment 1

Note: Answer the following questions

1. Write the answers to the following questions on a A4 sheet.
2. Upload the scanned pdf of the the same
3. The deadline for submission 15 Nov 2020.

Qn 1. Explain the differences between a Process and a thread

Qn 2. What is Cache memory? Explain different cache mapping techniques with an example

Qn. 3. What is instruction level parallelism? How how does it improve the performance

Qn. 4. Explain the following interconnection networks. Comment on their bisection width.

- a. Ring topology
- b. Toroidal mesh
- c. Fully connected network
- d. Hyper cube
- e. Crossbar network
- f. Omega network.
