Unit 5

1.Expalin in detail how cache coherence in multiprocessor environment is taken care of. Briefly describe different protocols

2.Explain wit the help of a neat diagram, shared memory architecture in multicore systems, give suitable examples

3.Explain wit the help of a neat diagram ,distributed memory architecture in multicore systems,give suitable examples

4. Explain wit the help of a neat diagram ,hybrid memory architecture in multicore systems,give suitable examples

5.Explain with suitable sketches, architectural difference between single core and multicore architectures with relevant examples

6.Explain various types in handling loops in multicore systems

7. Discuss (a) data parallelism (b) task parallelism (c) function parallelism

8.Define thread in multi core system. Discuss communication between threads.

9.Compare single-core vs multi-core architectures

10. Discuss various interconnection networks used in multi core parallel systems

11. Explain how data parallelism achieved through OpenMP directives and also explain how functional parallelism is achieved

12.Discuss in detail instruction level parallelism,with a suitable example of your choice

13.Describe briefly on the performance issues of multi-core processors.

14. Define Cache Coherence Problem. What are the 2 main approaches to cachecoherence ? Describe working of snooping cache coherence and explain describe directory based coherence

15.Describe the Evolution from single core to multi core architecture, also Compare single core and multi core processor

16. Explain Out of Order Execution with relevant example