Q1. Define speedup? Differentiate Ideal speedup v/s True speedup. explain Granularity? Explain effect of granularity on parallel processing.

Q2.

Q3. Identify which approach of computer architecture is specified in following diagram & explain with example.

Q4. Explain the concept of clustering.

Q5.What are the semantic issues in parallel Programs?

Q6.Explain parallelism issues in parallel computing and justify it by program.

Q7

Q8. Explain Concept of Dimension of Scalability

Q9.Explain Different Parallel computing Model.

Q10. Why to take into account different communication & interaction issue.

Q1. Draw the hierarchy for memory technologies. Differentiate between various level of memory hierarchy and state there advantages?

Q2. Explain pipelining and superscalar architecture with example.

Q3. Explain Cache coherence problem

Q4. Explain the following cache coherence protocols

1. Update Protocol
2. Invalidate protocol using three states.

Q5.

Q1. Write Methodical Design of Parallel Algorithms

Q2. Explain following paradigms used in parallel programming

i) Task-Farming (or Master/Slave)

ii) Single Program Multiple Data (SPMD)

iii) Data Pipelining

iv) Divide and Conquer

Q3. Explain the message passing models.

Q4. Explain A Cluster Computer and its Architecture.

Q5. Explain different parallel programming models.

Q6. Explain parallel programming paradigms.

Q7. Explain Single Program Multiple Data in details.

Q1. What is bus? Explain the different types of buses in parallel computer..

Q2. Explain the Network topologies with properties.

Q3. With the help of suitable diagram explain Software Multithreading.

Q4. Explain ‘Multistage networks’ using appropriate diagrams. What do you mean by ‘omega network’ and ‘blocking in omega network’?

Q5.Differentiate between following Network topologies on basis of concept, approach, advantages, disadvantages, etc

1. Star Vs mesh
2. Ring Vs Bus

Q6.

Q1. Discuss the following with respect to a parallel virtual machine:

1. Compiling and running of a PVM program
2. Message passing with respect to PVM

Q2. What is message passing? Describe the following

1. Synchronous Vs Asynchronous message passing
2. Message Passing Vs Calling

Q3. Explain Blocking Message Passing Operation with respect to

1. Blocking Non-Buffered Send/Receive
2. Blocking Buffered Send/Receive