

Code :R5321504

R5

III B.Tech II Semester(R05) Supplementary Examinations, April/May 2011
ADVANCED COMPUTER ARCHITECTURE
(Computer Science & Systems Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. Write the formula for weighted execution time. Explain the same with an example.
2. Give the reasons for emergence of general purpose resisters. What are the advantages and disadvantages of general purpose register computers?
3. Explain data dependent hazard with example.
4. (a) What are the advantages of loop unrolling?
(b) Explain about trace shedding.
5. Where can a block be placed in upper level? How is a block found if it is in upper level? Which block should be replaced on a miss.
6. (a) On what problem sizes the performance of scientific technical workload is measured. Explain.
(b) What factors contribute to L3 cache miss rate and how do they change as the L3 cache grows?
7. (a) Give the characteristic of common desktop IO buses.
(b) Write about the bus design decision.
8. (a) What is a cluster? Give an example.
(b) Explain about cost of cluster hardware alternating with local disk.
