

Code :CS05004

RA

III B.Tech II Semester(R07) Regular & Supplementary Examinations, April/May 2011
ADVANCED COMPUTER ARCHITECTURE

(Computer Science & Engineering)

(For students of RR regulation readmitted to III B.Tech II Semester R07)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. Write short notes on:

- (a) Transaction processing Benchmark.
- (b) Server Benchmark.

- 2. (a) Define Position independence. Explain.
- (b) Discuss the role of a compiler.

3. Explain dynamic scheduling in detail. What are the advantages of dynamic scheduling? What are its limitations?

4. What are the challenges of multiple-issue processors? Explain.

- 5. (a) Optimize the code
for(j=0;j<100;j++)
for(i=0;i<5000;i++)
x[i][j]=2*x[i][j];
Explain the difference between code before and after optimization.

(b) Explain about compiler control prefetching with an example.

- 6. (a) Explain how to convert thread level parallelism into instruction level parallelism.
- (b) How many bus transactions and how long does it take to have 10 processors lock and unlock the variable using a queuing lock that updates the lock on a miss?
- 7. (a) What is meant by Aerial density? Explain its effect in improving the capacity of disk.
- (b) Explain about the automatic tape libraries.
- 8. (a) What is a cluster? Give an example.
- (b) Explain about cost of cluster hardware alternating with local disk.
