

Code No: RR420504

**Set No. 1**

**IV B.Tech II Semester Supplementary Examinations, May 2008**

**PARALLEL PROGRAMMING  
(Computer Science & Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks**

\*\*\*\*\*

1. What are the parameters for increased computational speed? Explain. [16]
2. (a) What are the various techniques for loop splitting?  
(b) Explain about Spin Locks. [8+8]
3. Discuss about the Indirect Scheduling. [16]
4. Differentiate between Forward and Backward Data Dependency. [16]
5. Explain the overhead with 8 processors. [16]
6. Write a parallel program to compute factorial of n? The number n may be odd or even but it is positive. [16]
7. Write a parallel program for summation of n-numbers (array). [16]
8. Write a structure of parallel program in Fortran-77. [16]

\*\*\*\*\*

**IV B.Tech II Semester Supplementary Examinations, May 2008**  
**PARALLEL PROGRAMMING**  
**(Computer Science & Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

\*\*\*\*\*

1. (a) What is Process and Processor?  
(b) Explain the Fork Join constructs with the help of suitable example. [6+10]
2. Write Short notes on  
(a) Efficiency.  
(b) Speedup. [8+8]
3. (a) Explain about Race Condition.  
(b) What is Scheduling? [10+6]
4. What is Data Dependency? Mention various types of data dependencies. [16]
5. Explain about the structure of Parallel Programs. [16]
6. Write a parallel program for sorting of n numbers. [16]
7. What is Discrete event? Explain. [16]
8. Explain the Control Structure in Fortran-77. [16]

\*\*\*\*\*

**IV B.Tech II Semester Supplementary Examinations, May 2008**

**PARALLEL PROGRAMMING  
(Computer Science & Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks**

\*\*\*\*\*

1. Explain the fundamental techniques in parallel programming. [16]
2. What do you mean by Loop Splitting? Explain the importance of Loop Splitting. [16]
3. (a) Discuss about in-out Barrier Calls.  
(b) What are the applications of Loop Splitting? [8+8]
4. Explain Backward Dependency with example. [16]
5. (a) What is Overhead?  
(b) Explain the overhead with n number of processors. The number n is positive. [4+12]
6. Write a parallel program for average of n numbers. [16]
7. What is Discrete event? Explain. [16]
8. Explain the Control Structure in Fortran-77. [16]

\*\*\*\*\*

**IV B.Tech II Semester Supplementary Examinations, May 2008**  
**PARALLEL PROGRAMMING**  
**(Computer Science & Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

\*\*\*\*\*

1. (a) What is Shared Memory?  
(b) Discuss about Self Scheduling. [4+12]
2. Explain about the syntax of Fork and Join with an example. [16]
3. (a) Discuss about in-out Barrier Calls.  
(b) What are the applications of Loop Splitting? [8+8]
4. Explain about Recurrence Relations with example. [16]
5. Write a parallel program for searching a number in the given list. [16]
6. Write a parallel program for average of n numbers. [16]
7. What is Discrete event? Explain. [16]
8. (a) What are the limitations of Parallel Programming?  
(b) What are the Benefits of Parallel Programming? [8+8]

\*\*\*\*\*