PRINCE OF SONGKLA UNIVERSITY
FACULTY OF ENGINEERING
Department of Computer Engineering

Midterm Examination: Semester 1

Date: 1 August, 2006

Subject Code: 240-322

Subject Title: Client/Server Distributed Systems

Lecturer: Aj. Worraprot, Aj.Dillip

Academic Year: 2006

Time: 13:30 – 15:30 (2 hours)

Room: A401

Exam Duration: 2 hours

This paper has 2 pages.

Authorized Materials:

- Writing instruments (e.g. pens, pencils).
- Books (e.g. dictionaries) and calculators are **not** permitted.

Instructions to Students:

- Attempt all questions.
- Write your answers in an answer book.
- Start your answer to each question on a new page
- Clearly number your answers.
- Any unreadable parts will be considered wrong.

When writing programs, use good layout, and short comments;
marks will not be deducted for minor syntax errors

Student ID :_____ Name :_____Section : _____

Part I Answer the following question. (30 marks)

1. Give a definition and a good Example for Client Server Model.
2. Explain Advantages of Client/Server.
3. What is Distributed Programming?
4. Explain the Database Access in .Net and in JAVA.
5. What is RMI?
6. What is CORBA?
7. What is P2P (Briefly)?
8. Give examples of P2P Applications?
9. Why use Low-Level Operations?
10. What is a Process?
11. What is Transaction Processing and what is ACID?
12. What are the Major Differences between .Net & Java?
13. What are the Basic Operations in Low Level File I/O?
14. Explain about File Information in UNIX System.
15. What is Metadata and how it is Useful in Internet?

Part II Complete the following program (10 marks)

Write an ANSI C program that forks a child. The parent then wait for the child to finish. The child opens the file *message.txt* and also writes it to *stdout*. The child processes must use low-level file I/O commands. After the child is finish, the parent writes the message "Success child process" to stdout. Use low level I/O function to read/write file.