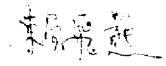


# Introduction to Computer Science



*Midterm exam 4/19/2000*

1.(20%) Describe the Ethernet transmission protocol – CSMA/CD.

2.(20%) Describe the 4 layers of the internet software and their typical functions.

3.(20%) what is deadlock in resource allocation? Describe the 3 conditions of deadlock and how to prevent deadlock.

4.(20%) What is pipelining? How can it increase the performance of microprocessor?

5.(20%) Describe the generic data compression techniques – run-length encoding, relative encoding, frequency-dependent encoding, Lempel-Ziv encoding.