



COMS 465 – Computer Mediated Communication

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Midterm Examination Study Guide

The midterm examination is scheduled for 75 minutes and will consist of four parts.

I. TALK THE TALK (10 x 1 point each)

Define the following acronyms and technical terms. For the acronyms, you can either explain what they mean or spell-out their elements. (i.e. NSF = "A national organization that funds scientific research and education" or "National Science Foundation").

- IPOS, ASCII, TCP/IP, ARPANET, LAN, WAN, HTML, CMC, ENIAC, W3C, CPU, ROM, GUI, PSTN, BIOS, HTTP, WWW, IC, RAM, USB, DARPA, POST, OS, OOP, URL, JPEG, FTP
- Analog, Communications, Bit, Ethernet, Machine Language, Data Bus Width, Timesharing, Cloud Computing, Dark Fiber, Throughput, Telnet, Packet Switching, Difference Engine, Bandwidth, Digital, Software, Clock Speed, Hypertext, Router, UNIX, Multitasking, Byte, Hardware, Linux, Protocol, Last Mile Problem, Net Neutrality, Quantum Computer, Mosaic, Javascript

II. IT'S WHO YOU KNOW (10 x 2 points each)

Briefly identify each person(s) listed below by indicating the contribution(s) s/he has made to the development of or debate concerning communication technology.

Augusta Ada Byron, Vannevar Bush, Tim Berners-Lee, Rand Corporation, Clare Sutcliffe, Ted Hoff, Charles Babbage, Grace Hopper, Joseph Marie Jacquard, Tim O'Reilly, Gordon Moore, Herman Hollerith, Ned Lud, Bob Metcalf, Linus Torvalds, Ray Tomlinson, Apple, John Mauchly and J. Presper Eckert, Steve Jobs, Bill Gates, Steve Wozniak, IBM, Steven N. Goldstein, Jibo, Cisco Systems, Theodore Nelson, Marc Andreessen, Michio Kaku, Konrad Zuse, Vinton Cerf

III. SHORT ANSWER (5 x 8 point each)

Provide short responses (4-6 sentences) to the following questions:

1. Computers employ both input and output devices. List and briefly describe the function of two input devices and two output devices.
2. The two "laws" describing development of computer and network technology are Moore's Law and Metcalfe's Law. Briefly characterize both laws.
3. Computer networks can employ either circuit switching or packet switching. Describe each form of switching and indicate its advantages and disadvantages for computer networking.
4. The control unit of the computer's CPU manages four separate operations, called the "processing-cycle." What are the four operations of the processing-cycle and what happens at each stage?
5. The evolution of computer technology is divided into four distinct generations. List the dates corresponding to each generation and provide at least two distinguishing technological features that define each generation.
6. The Cisco Systems white paper "The Importance of Broadband Policy" describes several areas in which broadband will have a significant impact. List three of these and briefly describe the positive effect broadband is having or is predicted to have on them.
7. What are the five basic functions of an operating system? Name and briefly describe each function.

8. Programming languages are commonly organized into five generations. Identify the five generations and indicate their basic features.
9. Starting a computer is called "booting." The boot process involves six separate steps. List and briefly characterize the six steps the computer goes through, when it is booted.
10. The core language of the web is called HTML. List two HTML tags and briefly explain what each one does.
11. Computer networking has both advantages and disadvantages. List and briefly characterize three of the advantages and three of the disadvantages of computer networking.
12. List and briefly explain the three main characteristics of Web 1.0 and the three main characteristics of Web 2.0?

IV. ESSAY (1 x 30 points)

The final part of the exam will provoke critical reflection on or assessment of a particular issue previously discussed in seminar meetings. You will be provided with four options. You are to select one question and write an essay response to the question or problem described. Please remember that this is an essay response. You must have a clearly stated thesis, evidence and support to prove your thesis, and a conclusive ending. Unlike the other three sections, there is not necessarily a right answer in this section. There are only well devised and argued responses.

Example: In our investigations of hypertext, we discussed whether this new writing technology provided nothing more than a more convenient way to manipulate text or whether it offered a radical re-formulation of our understanding of reading and writing. What do you think? Is hypertext a mere convenience, or does it indeed introduce new concepts that significantly alter the way we think and write? Why? (Make sure you address the analyses of hypertext that we considered in the texts as well as your own experiences either reading or writing hypertext.)

Exam Procedure: The first three parts of the exam will be written on the examination sheet. Students will write responses to these questions WITHOUT any support material (i.e. notes, books, online resources, etc.). The essay will be written on the computer and will be assessed for both content and mechanics (grammar, punctuation, spelling, etc.). Since the essay is not about a "right answer" but about a well-crafted argument, students may use support materials (i.e. class notes, books, online resources, word processing tools, etc.). The essay will be printed and turned in to the instructor at the end of the exam period.