CGS1100, Spring 2004: Study Guide for Exam 1

Dr. Martin Hepp, mhepp@computer.org

Phone (239) 590-7311

Relevant Topics:

1. Reading Assignments for Units 2A, 3A, 4A, 5A
2. Additional contents covered in class (all slides, units 1A, 1B, 2A, 3A, 4A, 5A)

Make sure you UNDERSTAND the concepts covered! Don't just learn by heart the definitions etc. Ask in class if some concepts are unclear!

How to Prepare for the Exam:

1. Re-read your notes for chapters 1 – 5 (excluding MS-Word)
2. Review the slides for units 1A, 1B, 2A, 3A, 4A, and 5A, and make sure you remember what they describe.
3. Make sure you understand the review questions shown below.
4. Make sure you can calculate the Total Cost of Ownership for a given computer device (review the example on the slides for unit 4A).

Self-Assessment:

Make sure you know the answers to the following questions. A huge portion of these questions will be part of the exam, either in the exact way listed below or similar questions!

1. What is the difference between a computer and a TV set?
2. Why do companies delegate tasks to computers instead of hiring more people?
3. Why is a tumble-drier with an microprocessor inside not a true computer?
4. What is the purpose of computer memory? (it holds both the data and the program)
5. Why are modern computers "digital" computers, i.e., what are the advantages of just two states (0 and 1) in a computer?
6. The binary number 1010 is equal to which decimal number? (1 * 8 + 0 * 4 + 1 * 2 + 0 * 1 = 12) (make sure you can do that for any number between 0 and 15)
7. How many bits are in one byte?
8. How does the data bus, the control bus, and the address bus interact when the processor reads from the memory?
9. Does the memory in a computer contain both values and instructions or just values?
10. Why are hard disks sensitive to shock?
11. Do the read-/write heads of a hard disk slide on the media surface?
12. At which speed is the head moving over the media surface of a hard disk?
13. Why must the inner parts of a hard disk be protected from dust and other dirt?
14. What is the difference between a track and a sector on a hard disk?

15. Do the read/write heads in a floppy drive slide on the media surface?
16. What are pits and lands?
17. Can the contents on a CD-R be destroyed by magnetism?
18. Can the contents on a CD-R be destroyed by sunlight?
19. Can the contents on a CD-ROM be destroyed by sunlight?
20. Will Random Access Memory (RAM) loose its contents if the power supply is interrupted?
21. Will Flash Memory loose its contents if the power supply is interrupted?
22. What is the function of a BIOS?
23. How is the shape of a characters stored in a printer or display device? (as a font; each character is a combination of dots; there is a set of binarey numbers representing the dots for every available character)
24. Why does the type of paper used influence the output quality of an inkjet printer?
25. Which role does electrostatic charge play in a laser printer?
26. How are the toner particles of a laser printer finally fixed to the paper?
27. Why are screen saver utilitites important if one is using a regular monitor (CRT)?
28. Does the refresh rate of a display affect the convenience for the computer user? If yes: In which way? If no: why?