

ACS 1803 STUDY QUESTIONS Final - Part 2 For ACS-1803

(The following questions are intended to help guide your studying. Be sure to emphasize understanding of how all the ideas fit together - until you feel that you can explain these ideas to someone else. You do **not** need to hand in these questions.)

22. Why is a computer referred to as a system? What components make up the architecture of a computer system?
23. What is the job of the central processing unit? What are the roles of the control unit and the ALU? What are the basic properties of main memory? What is the microprocessor chip?
24. At the level of CPU workings, what is a machine language instruction? How is a program consisting of several machine language instructions executed in the CPU?
25. What does it mean that all machine language instructions and data for these instructions must be stored in electronic form? How can numbers be stored electronically?
26. What is a bit, a byte? What is "K bytes", "one Megabyte", one Gigabyte? Distinguish between the terms "hardware" and "software".
27. Although all programs, when they are executed in the CPU, must be in machine language, programs are not normally written in machine language. What is assembly language? How does it relate to machine language? Why is it called a low-level language?
28. What makes it possible to store "real world" characters other than numbers in electronic form? How did this help in the invention of assembly language?
29. What is a third-generation, or high-level language? How does it relate to machine language?
30. Why are there different high-level languages available?
31. What is a fourth-generation language? How does it differ from a third-generation language? Why is a 4GL appealing to people who are not computer specialists? What is a non-procedural user-oriented applications "package" for the microcomputer?
32. What are the main differences between mainframes, minicomputers, microcomputers, and supercomputers?
33. Why, in addition to main memory (primary storage), do we need "secondary" storage? What are primary characteristics of tape storage? What is a disadvantage of using tape?
34. How is data stored on magnetic disk?
35. What is the advantage of a CD over a magnetic disk?
36. What is the difference between "system software" and "application software"?
37. What is an "operating system"? What are some of its main functions within a computer?
38. Explain: RAM, ROM, motherboard, CD-ROM, cards, ports, buses, power supply, USB

39. What is a "network" of computers? What is a file server?
40. What is the function of a modem?
41. What is a "local area network" (LAN) ? What are its advantages?
42. What components do we need to connect several computers into a network?
43. What is a "server" and what are "clients"?
44. Identify five types of transmission media that may be involved in connecting networked computers
45. In what different ways can we arrange computers in a network??
46. What is a "network operating system"? Give an example of one such system.
47. What are basic properties of a wide-area network (WAN)?
48. What are the basic features of a value Added Network (VAN)?
49. What is the "Internet"?
50. Explain how the Internet uses packet switching.
51. What is TCP/IP?
52. Identify several types of Internet Transmission Media.
53. Explain the structure and operations of the World Wide Web.
54. Explain the difference between a web address and an Internet e-mail address.
55. Identify four types of websites, when it comes to the degree of user interactiveness.
56. Outline an overview of a web session
57. Explain the concept of "hyperlinks" , HTML and http.
58. Explain intranets and extranets.