

Multiple-choice Questions

For each of the following questions, choose the letter of the one **best** response.

Chapter 1

1. The two principal catalysts for the Information Age have been
 - a) books and pamphlets.
 - b) computers and communication networks.
 - c) movie theaters and public parks.
 - d) newspapers and magazines.
 - e) the printing press and the telegraph.
2. Which statement best supports the conclusion that society **can** control whether to adopt a new technology?
 - a) No new nuclear power plants were built in the United States for 25 years after the accident at Three Mile Island.
 - b) About half of all email messages are spam.
 - c) Despite decades of research, fusion power is an elusive goal.
 - d) People do not have to listen to Rush Limbaugh if they do not want to.
 - e) Some new technologies are simply too expensive to even consider adopting.
3. Tablets, abacuses, and manual tables
 - a) are no longer used, because of the proliferation of calculators and computers.
 - b) are examples of aids to manual calculating.
 - c) were developed in Western Europe in the late Middle Ages.
 - d) replaced Hindu-Arabic numerals as the preferred way to do calculations.
 - e) All of the above.
4. The mechanical adding machines of Pascal and Leibniz were not widely adopted because
 - a) they were too expensive.
 - b) there were unreliable.
 - c) they were too difficult to program.
 - d) they could not handle fractions.
 - e) bookkeepers successfully lobbied the King, and he made the machines illegal.
5. The calculating machine of Georg and Edvard Sheutz
 - a) computed the values of polynomial functions.
 - b) typeset the results of its computations.
 - c) performed calculations faster than they could be done manually.
 - d) performed calculations more reliably than they could be done manually.
 - e) All of the above.

6. Which of the following phrases does **not** describe the Gilded Age in America?
 - a) rapid industrialization
 - b) economic expansion
 - c) widespread electrification
 - d) concentration of corporate power
 - e) corporate mergers
7. Which of the following was **not** a result of the adoption of mechanical calculators?
 - a) Less demand for “superstars” who could rapidly compute sums by hand
 - b) Higher productivity of bookkeepers
 - c) Higher salaries of bookkeepers
 - d) Proliferation of companies making calculators
 - e) Feminization of bookkeeping
8. Which of the following was **not** a feature of cash registers in the early 1900s?
 - a) Ability to compute total of purchases
 - b) Ability to print itemized receipts for customers
 - c) Ability to print log of transactions for owners
 - d) Ability to compute amount of change to give customer
 - e) Ability to ring a bell every time cash drawer is opened
9. Punched card tabulation was invented by Herman Hollerith, an employee of
 - a) the Pennsylvania Railroad.
 - b) the Census Bureau.
 - c) the Pennsylvania Steel Company.
 - d) the Burroughs Adding Machine Company.
 - e) IBM.
10. Which of the following phrases best describes a system that inputs data, performs one or more calculations, and produces output data?
 - a) manual calculator
 - b) digital computer
 - c) data-processing system
 - d) difference engine
 - e) cash register
11. The first commercial electronic digital computers were produced just after
 - a) the Spanish-American War.
 - b) World War I.
 - c) World War II.
 - d) the Korean War.
 - e) the Vietnam War.
12. Programming languages were developed in order to
 - a) make it possible to program computers in English.
 - b) make programming faster and less error-prone.
 - c) speed translations between English and Russian during the Cold War.
 - d) improve the computation speed of computers, which were very expensive.
 - e) All of the above.

13. Which of the following was not an early programming language?
- a) BASIC
 - b) COBOL
 - c) DATA-FLOW
 - d) FLOW-MATIC
 - e) FORTRAN
14. Software that allows multiple users to edit and run their programs simultaneously on the same computer is called
- a) a data-processing system.
 - b) an intranet.
 - c) a microprocessor.
 - d) a programming language.
 - e) a time-sharing system..
15. A semiconductor device containing transistors, capacitors, and resistors is called
- a) a difference engine.
 - b) a diode.
 - c) an integrated circuit.
 - d) a radio.
 - e) a transformer.
16. Which Cold War program played an important role in advancing integrated circuit technology?
- a) B-52 bomber
 - b) Hydrogen bomb
 - c) Mark 37 torpedo
 - d) Minuteman II ballistic missile
 - e) NORAD radar network
17. Which company produced the System/360, a family of 19 compatible mainframe computers?
- a) Fujitsu
 - b) Hewlett-Packard
 - c) IBM
 - d) Intel
 - e) Texas Instruments
18. The company that invented the microprocessor is
- a) Fujitsu
 - b) Hewlett-Packard
 - c) IBM
 - d) Intel
 - e) Texas Instruments
19. Which of the following was **not** an activity of the People's Computer Company, a not-for-profit corporation in the San Francisco area?
- a) Publishing a newspaper containing the source code to programs
 - b) Allowing people to rent time on a time-shared computer
 - c) Hosting Friday-evening game-playing sessions
 - d) Promoting a culture in which computer enthusiasts freely shared software
 - e) Developing the world's first graphical user interface

20. Who wrote "An Open Letter to Hobbyists," complaining about software theft?
- a) Stewart Brand
 - b) Bob Frankston
 - c) Bill Gates
 - d) Steve Jobs
 - e) Steve Wozniak
21. A key application that first made personal computers more attractive to business was
- a) the spreadsheet program.
 - b) the World Wide Web.
 - c) desktop publishing.
 - d) video editing.
 - e) email.
22. The software company that provided IBM with the operating system for its PC was
- a) Apple.
 - b) Boeing.
 - c) Microsoft.
 - d) Novell.
 - e) Tandy.
23. The first electronic networking technology widely used in the United States was the
- a) Internet.
 - b) radio.
 - c) telegraph.
 - d) telephone.
 - e) television.
24. The Pony Express went out of business when
- a) the Mexican War ended in 1846.
 - b) the Civil War began in 1861.
 - c) the transcontinental telegraph was completed.
 - d) AT&T completed the national telephone network.
 - e) the radio was invented.
25. Alexander Graham Bell invented the harmonic or musical telegraph, which enabled
- a) more than one message to be sent over a single telegraph wire at the same time.
 - b) human speech to be sent over a telegraph wire.
 - c) music to be sent over a telegraph wire.
 - d) B and C
 - e) None of the above.
26. Nearly all early telephones were installed in businesses, because
- a) people were afraid that telephones were dangerous.
 - b) people thought that the government was using telephones as eavesdropping devices.
 - c) only men were allowed to use a telephone.
 - d) most homes did not have electricity.
 - e) leasing a telephone was expensive.

27. A typewriter that prints a message transmitted over a telegraph line is called a
- a) computer.
 - b) monitor.
 - c) teletype.
 - d) terminal.
 - e) transponder.
28. Guglielmo Marconi originally conceived of the radio as a way to
- a) transmit telegraph messages without wires.
 - b) transmit electricity without wires.
 - c) transmit votes in national elections.
 - d) transmit light without wires.
 - e) All of the above
29. The power of radio as a medium of mass communication was demonstrated in 1938 when Orson Welles put on a dramatization of
- a) *War of the Worlds*.
 - b) *Hamlet*.
 - c) Homer's *Odyssey*.
 - d) the assassination of Franklin Roosevelt.
 - e) *20,000 Leagues Under the Sea*.
30. ARPA Director J.C.R. Licklider conceived of a Galactic Network that would
- a) control weapons from space.
 - b) guide spacecraft to distant planets.
 - c) become the world's most powerful number-crunching machine.
 - d) facilitate the exchange of programs and data.
 - e) All of the above
31. One of the first and most important applications of the ARPANET was
- a) email.
 - b) voice mail.
 - c) spreading computer viruses.
 - d) disseminating anti-Communist propaganda to American citizens.
 - e) stealing secrets from the Soviet Union.
32. What term is used to describe a high-speed Internet connection?
- a) broadband
 - b) hypertext
 - c) Internet2
 - d) the Matrix
 - e) World Wide Web
33. Which country has the fastest broadband connections on average?
- a) China
 - b) Germany
 - c) India
 - d) South Korea
 - e) United States

34. A common name for a wireless Internet access point is
- a) broadband hub.
 - b) hotspot.
 - c) Internet access-ory.
 - d) Internet café.
 - e) wap.
35. The first alphabet to represent vowels as well as consonants was developed by the
- a) Babylonians.
 - b) Egyptians.
 - c) Greeks.
 - d) Romans.
 - e) Syrians.
36. In the fourth century the codex replaced the scroll because
- a) it was more durable, and it was much easier to look up a particular passage.
 - b) it was much lighter, and it could be made much more rapidly.
 - c) Gutenberg's printing press had just been invented.
 - d) there was a worldwide shortage of papyrus.
 - e) All of the above
37. Hypertext is supposed to mimic
- a) the associative memory of human beings.
 - b) the way that creeks flow into streams and streams merge into rivers.
 - c) constellations in the night sky.
 - d) road networks.
 - e) the way that some people "channel surf" with a remote control.
38. What visionary invented the computer mouse and demonstrated windows, email, and live network videoconferencing at "the mother of all demos" in 1968?
- a) Vannevar Bush
 - b) Douglas Engelbart
 - c) Al Gore
 - d) Alan Kay
 - e) Ted Nelson
39. The first popular personal computer with a graphical user interface was the
- a) Apple Macintosh.
 - b) Compaq Presario.
 - c) IBM PC.
 - d) NeXT workstation.
 - e) Tandy TRS-80.
40. The World Wide Web is the creation of
- a) Tim Berners-Lee.
 - b) Vannevar Bush.
 - c) Douglas Engelbart.
 - d) Alan Kay.
 - e) Ted Nelson.