UNIT

9 Information Processing and Integrated Office Automation/New Technology (NT)

REVIEW QUESTIONS

PART A

Match the following definitions with the terms in the righthand column.

1. A device that allows one computer to "talk" to another   ____   a) EDI

2. Controlling a company's records   ____   b) shared-logic

3. Software that allows people travelling to keep in touch   ____   c) ring

4. The electronic exchange of data   ____   d) records management

5. Type of system that uses dumb terminals and a computer   ____   e) bar-code

6. Information communicated around a "circle"   ____   f) wireless

7. Software that runs on more than one operating system   ____   g) communications software

8. A pattern of vertical stripes that contains data   ____   h) star

9. Communicating without the need for cables   ____   i) modem

10. A network where terminals cannot "talk" to each other   ____   j) open

PART B

Complete the following sentences by filling in the blanks.

1. A computer network that services a large area is called a/an _____.

2. Information processing is the manipulation of all forms of knowledge expressed in _____, _____, _____, and _____ and by the _____.

3. _____ allow the transfer of data electronically anywhere in the world.

4. EDI stands for _____.

5. _____ forces the rethinking of outdated procedures.

6. PCs and printers linked together form a/an _____ system.

7. A/An _____ is usually privately owned.

8. Another word for a network configuration is _____.

9. _____ make possible the storage of information that can be retrieved in any number of different ways.

10. _____ makes every PC in a network equal.

11. Information processing in the automated office is achieved through the integration of _____, _____, _____, and _____.

12. _____ covers methods of reproducing or duplicating information.

13. *Image processing* refers to converting images into a _____ form acceptable to a computer.

14. The process of _____ includes extracting information from business transactions, storing it, and making it accessible to _____ personnel.

15. _____ is the on-line buying and selling of products and services.

16. The redesigning of entire business processes is called _____.

17. _____ ensures that all participants in any work process have all the information needed to do the job.

18. The three basic principles of work management are _____, _____, and _____.

19. Businesses are always looking at the bottom line or a good _____ investment.

20. NT means _____.

CALCULATIONS

Insert the answers to the following calculations in the spaces provided.

1. You have 10 PCs in a LAN with two printers and a scanner. Each PC cost $1995; each printer, $495; and the scanner, $169. What was the total cost of the equipment, including GST and PST (8% based on cost price alone)? What would be the total cost of the equipment including HST at 15%?

   _____

2. The LAN is question 1 took three people four days to install. Two of the installers earned $25.35 an hour, the other $24.50. Assuming an eight-hour day, what was the cost of the installation, before taxes?

   _____

3. A word processing specialist can key one page every 10 minutes. A scanner can scan one page every minute, but it takes an experienced person five minutes to "clean up" the scanned copy. How many pages can be processed each hour using both methods?

   _____

   _____

4. Referring to question 3, how much faster was the fastest method?

   _____

5. You need some supplies for your co-workers on the LAN. They need: two boxes of labels @ $11.95 a box, five boxes of CDs @ $13.49 a box, 10 felt pens @ $1.96 each, three copies of DeskOrg software @ $223.00, and one dozen Magic Markers @ $0.49 each. You are also going to return one spare keyboard that cost $19.95. What is the total cost of the bill including GST?

   _____

RESEARCH ACTIVITIES

1. The keyboard is still the primary data entry device used on computers today; however, there are many different styles available. Research the different types of keyboards and present your findings in an oral report.

2. Contact a local business that has successfully implemented office automation/new technology. If possible, invite a speaker from the company to address the class about his/her experiences. Be sure to prepare questions ahead of time for the speaker for the Question-and-Answer period. Afterwards, discuss as a class the successfulness of the company's office automation/new technology project.

3. The speed of computers is increasing at a tremendous rate. Research the various processors, their speed, and any other information relevant to the power of the CPU. Present your findings in a chart that compares each of the studied processors.

4. Printers vary in capabilities and price. Pick three black and white and three colour printers and compare their features, functions, and benefits.

5. You work for a small engineering firm that has a number of stand-alone PCs. The president has asked you to examine how they can be connected together so that files can be shared. Research the network possibilities and present your findings in a proposal to the president.

6. Contact a local business that is still considering office automation/new technology. Invite a speaker from the company to address the class about the project. Be sure to prepare questions ahead of time for the speaker for the Question-and-Answer period. Questions should be tactful – this company has not yet implemented office automation/new technology. Afterwards, discuss as a class the company's office automation project/new technology and whether it will, or will not, be successful.

7. LANs, WANs, Widgets, and Whatevers. What does it all mean? Prepare a poster board presentation of the various network options that graphically depicts the different types of networks available today.

8. "The paperless office will never happen." Research the ramifications of, and be prepared to debate, this statement.

9. Research various magazines and computer periodicals available today that deal with information processing and new technology. Compare them as to content, relevance, etc. and present your findings in a written report.

10. For a network-based system, you will probably need a central file server. Research file servers, what they are, how much they cost, etc. and present your findings in a written report.

11. Research the current status of wireless technology (such as Bluetooth). Present your findings in an oral report.

12. Research current new technologies. Present your findings in a newsletter.

13. Research the role of e-business/e-commerce in today's work environment. Present your findings in an oral report.

14. What are virtual private networks (VPNs)? Present your findings in a short written report. E-mail the report (as an attachment) to your instructor.

ON-THE-JOB ACTIVITIES

1. Read the following case study.

   You are the manager of a technical report-writing department. You are in the middle of moving your huge mainframe-based documentation library to a LAN. Your department has a massive workload that you cannot put on hold until everyone is retrained. To minimize disruption, you are implementing the new technology in stages.

   Your supervisor has interviewed and hired a consultant, Tom Delaney, to work in your department as a technician and trouble-shooter. His duties are loosely defined. Your supervisor says Tom is to be your "technical resource." His only definite project is to produce a library on CD-ROM.

   As the weeks go by, you are becoming more and more frustrated and angry. Tom spends hours reading technical magazines and experimenting with software but has no feel for deadlines and budgets. He recently reset a printer, didn't tell anybody, and then left the office early. The staff assumed that the printer was broken and called in a service technician.

   You notice that Tom loves to spend time with the writers and desktop publishers to demonstrate some new software or run a demo disk. You estimate that this is costing the company about $3000 per month in lost time.

   Whenever you ignore Tom's technical advice, he tells everyone in the department that they are destined for technological doom. As a result, you feel compelled to spend extra time to obtain evidence to support your technical decisions.

   You talk to your supervisor about Tom but she is too busy to become involved and says that you are not exercising enough control over your department.

    a) Identify and analyze the main human resource management problems.

    b) You want to make Tom part of the solution instead of part of the problem. Outline your solutions in a report that could be presented orally.

2. Describe a procedure to implement office automation/new technology. If you have access to scheduling software, input your data and produce a time line of events.

3. Information processing/new technology has created new career possibilities. Locate job advertisements for three such new roles. What do these jobs entail? What qualifications and personal qualities are needed? How would you obtain these qualifications?

WHAT WOULD YOU DO?

In the space provided, indicate what you would do in the following situations.

1. A colleague who enjoys using the communicating feature of your networked system uses profanities when making communications. You want to stop this.

    _____

    _____

2. You are going to introduce new technology in your office in the next few months. You have heard through the grapevine that some employees are concerned about their jobs being phased out.

    _____

    _____

3. You have heard that your competitors, who have the same type of network as you, have recently had a major system crash that was costly and frustrating. You do not want the same thing to happen in your organization.

    _____

    _____

4. At today's management meeting, several managers expressed concern about the security of information on the network because it had come to their attention that some employees were gaining access to confidential information.

    _____

    _____

5. You have noticed that the network is clogged with outdated information.

    _____

    _____

6. Employees at your company feel uncomfortable because the managers are monitoring their performance through the computer.

    _____

    _____

7. Your new network has a calendaring feature. You are annoyed because people are making appointments in your calendar without checking with you first.

    _____

    _____

8. One of your co-workers is complaining that the company keeps adding new hardware and software to the network but not providing training first. His supervisor expects maximum productivity as soon as the new hardware or software is installed and criticizes employees when productivity actually drops while they are learning.

    _____

    _____

9. Your company has issued smart cards to its European sales representatives. You overhear one representative saying that she uses the card for both her personal and business telephone calls.

    _____

    _____

10. You notice several employees playing with some shareware that has nothing to do with work. On enquiry, you find out that your in-house computer "whiz kid" has installed some entertainment shareware at all of the workstations.

    _____

    _____