

A-1. Try to find the best fit for answers that match one of the key terms and concepts listed below with one of the brief examples or definitions that follow. (15%, 1% each)

- ___ (a) A centralized and integrated database of current and historical data about an organization.
- ___ (b) An international standard, multilevel set of protocols to promote compatibility among telecommunications networks.
- ___ (c) A small application program distributed from a Web server.
- ___ (d) A Web-based interface helps intranet and extranet users access internal and external resources and services.
- ___ (e) Collaboration software for teams, workgroups, and the enterprise.
- ___ (f) Cost leadership, differentiation of products, and new product innovation are examples.
- ___ (g) Devices for consumers to access the Internet.
- ___ (h) Help a communication channel carry simultaneous data transmissions from many terminals.
- ___ (i) Internet-like networks and websites inside a company.
- ___ (j) Organizing and sharing business information created within or imported into an organization.
- ___ (k) People who spend most of their workday creating, using, and distributing information.
- ___ (l) Processing data in a data warehouse to discover key business factors and trends.
- ___ (m) Programs of continual improvement in meeting or exceeding customer requirements or expectations.
- ___ (n) Provides a greater memory capability than a computer's actual memory capacity.
- ___ (o) Roughly one billion characters of storage.

Key Terms and Concepts for reference:

- (1) Applet (2) BPR (3) Competitive strategies (4) Data mining (5) Data warehouse (6) Database (7) Electronic communication tools (8) End user (9) Enterprise information portal (10) Extranet (11) Gigabyte (12) Groupware (13) Information appliance (14) Information processing (15) Intranet (16) Java (17) Knowledge management (18) Knowledge workers (19) Megabyte (20) Multiplexer (21) Network computer (22) OSI (23) Resource management (24) Switching alternative (25) TQM (26) Value chain (27) Virtual memory (28) Wide Area Network (29) Workflow system (30) WWW

- A-2. (1) Quoted from a research note: "By 2004, manufacturers that fail to employ e-commerce technologies will be 30 percent less likely to be granted preferred supplier status." Please draw a flowchart to depict how a supplier which producing computer peripherals for international buyers may transform their product design, supply planning or procurement process to utilize new web-centric collaborative technologies. (6%)
- (2) What's the possible specific vendor that offer the new capabilities in your previous answer. Briefly explain web-centric solutions of your preferred vendor. (4%)

A-3. Follow your answer in A-2, if you are in charge to evaluate and to quantify the business value of the proposed investments in new web-centric collaborative technologies, list at least five possible steps you need to perform. Briefly illustrate each step (Hint: Assume any real numbers such as the cash flow projection to make your point clear!). (10%, 2% each)

A-4. How are HTML, XML, and Java affecting business applications on the Web. Consider a wireless shop floor quality control system as example to illustrate how these tools may impact on the characteristics of the system. For each language please either show partial code or describe your experience in the implementation of a similar system. (15%, 5% each)

- B-1. In the traditional system development approach, the organization's IS professionals in a centralized or decentralized IS group lead the development of system using the SDLC approach. Accordingly, such concept recognized that the development of a system never ends – after a system is installed it must be continually modified to keep it current with the changing needs of the organization. Please specify the major phases of SDLC and elaborate the insights. (20%)
- B-2 A large pharmaceutical company has a comprehensive order-entry and processing system that was developed over fifteen years ago using batch-oriented technology. This system includes about 600 programs, and it has been modified over the years to include on-line data entry and query capabilities, but it is still basically a batch system. It is difficult to make the changes in this system that are required by changes in the environment, and it is virtually impossible to enhance the system to meet today's needs of the organization. What are the options, which this company will have, to deal with the problem of aging system? (15%)
- B-3 Eastman Kodak outsourced its data centers, telecommunications, and its microcomputer systems to different companies. Kodak doesn't see these areas as central to his vision for information and technologies or a significant strength for competitive advantage. What are the incentives, which Kodak can obtain, from his outsourcing strategy? (15%)