Untitled Exam

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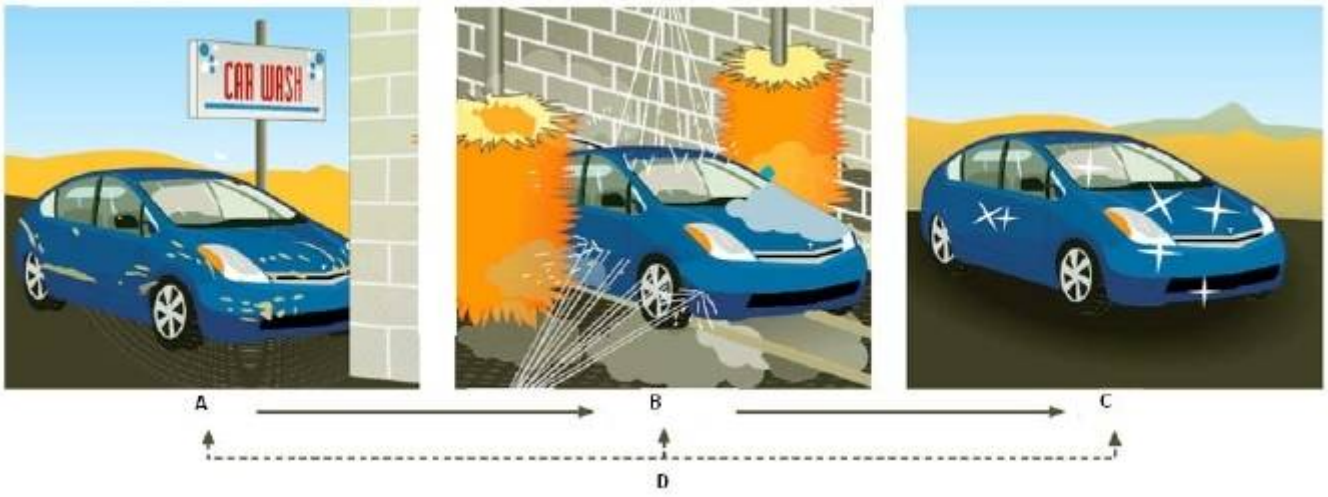
Exam A

QUESTION 1
Study the following diagram depicting the components of a system. What do the letters 'B' and 'D' respectively represent?



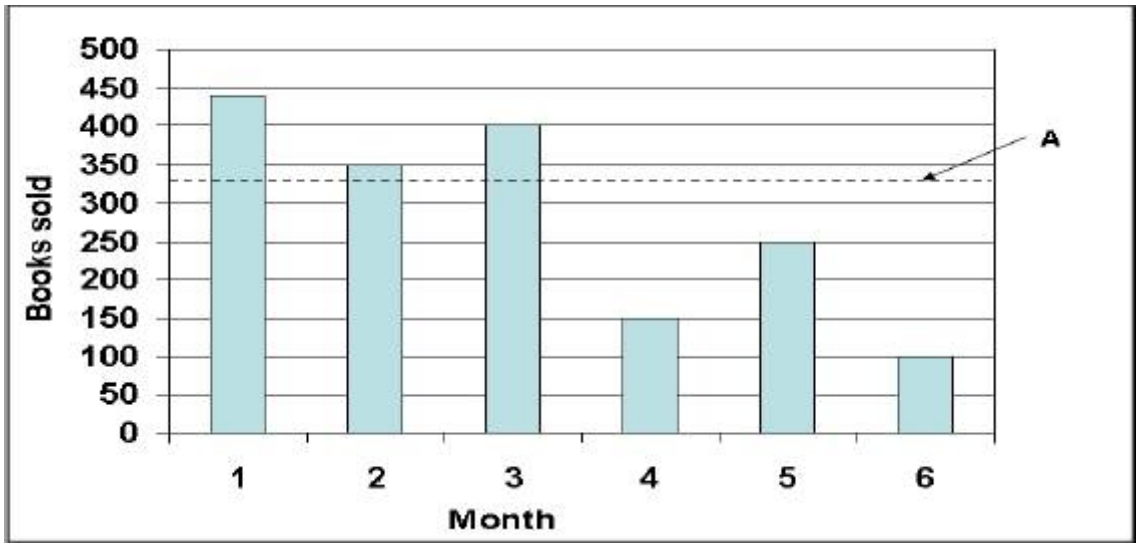
A. input; output
B. processing; feedback
C. input; feedback
D. processing; output

Answer: B
Section: (none)

Explanation/Reference:
pg 4-5, Figure 1.1

'A' represents input.
'B' represents processing.
'C' represents output.
'D' represents feedback.

QUESTION 2
The following is the graph depicting the system performance standard (represented by A) and the sales in the first 6
months of the year 2011 for a bookstore.



What is the system performance standard for the book store?

A. To sell 300 books per month.
B. To sell more than 100 books per month.
C. To sell less than 350 books per month
D. To sell 335 books per month.

Answer: D
Section: (none)

Explanation/Reference:
pg 5, Figure 1.2

A system performance standard is a specific objective of the system.

For example, a system performance standard for a marketing campaign might be to have each sales repres entative sell €100 000 of a certain type of product each year.

A system performance standard for a manufacturing process might be to provide no more than 1 percent de fective parts.

The system performance standard of the Bookstore is to sell 335 books per month.

QUESTION 3
AG Manufacturers require information that can be utilized by the accountants to create financial statements, the manufacturing department to determine the inventory level and by the shipment department to determine the outflow of all products from the organization. Such information must be _____ & _____

A. flexible
B. relevant
C. inaccessible
D. retrievable

Answer: AB
Section: (none)

Explanation/Reference:
This question was NOT marked as information has to be both flexible and relevant.

Flexible information can be used for a variety of purposes.

For example, information on how much inventory is on hand for a particular part can be used by a sales representative in closing a sale, by a production manager to determine whether more inventory is needed, and by a financial executive to determine the total value the company has invested in inventory.

Relevant information is important to the decision maker.

QUESTION 4
Some new cars and home appliances include computer hardware, software, databases and even telecommunications to control their operations and make them more useful. This is often called computing.

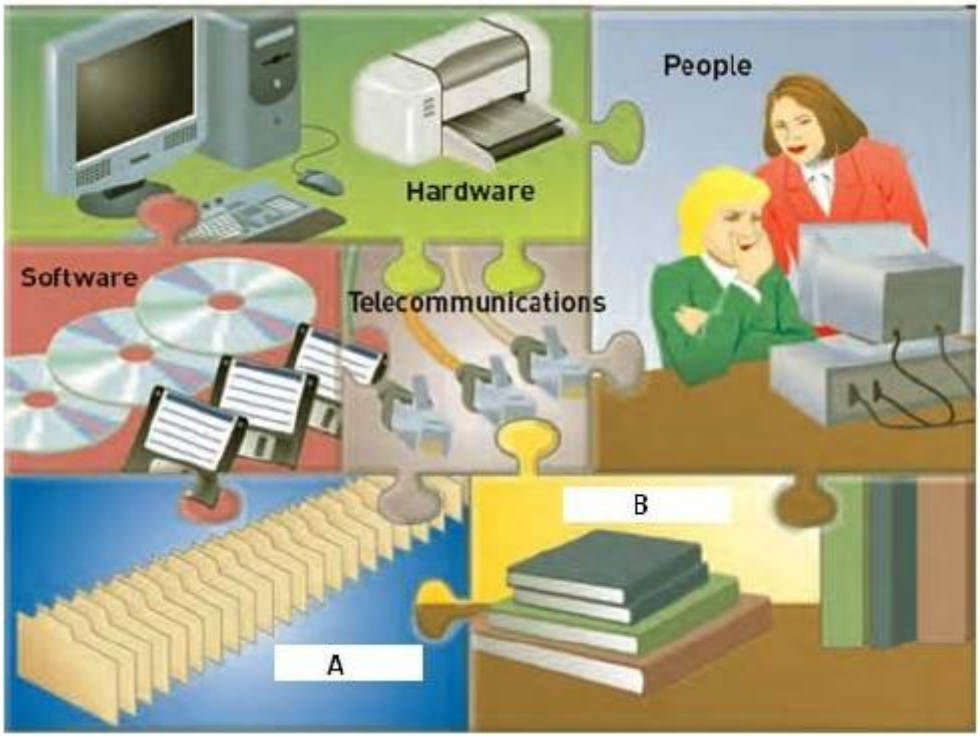
A. embedded
B. pervasive
C. ubiquitous
D. multidimensional

Answer: ABC
Section: (none)

Explanation/Reference:
pg 8

Some new cars and home appliances include computer hardware, software, databases and even telecommunications to control their operations and make them more useful. This is often called 'embedded', 'pervasive' or 'ubiquitous' computing.

QUESTION 5
Study the following diagram. Which components of a Computer-Based Information System (CBIS) are denoted by the letters 'A' and 'B' respectively?



A. CPU; books
B. Output device; user manual
C. Filing cabinet; procedures
D. Databases; procedures

Answer: D
Section: (none)

Explanation/Reference:
pg 8-9,
Figure 1.3

A computer-based information system (CBIS) is a single set of hardware, software, Databases (A), telecommunications, people and procedures (B) that are configured to collect, manipulate, store and process data into information.

QUESTION 6
Which component of the CBIS would a library utilize to store information about all of the books, journals and periodicals that are available in the library?

A. hardware
B. system software
C. networks
D. database

Answer: D
Section: (none)

Explanation/Reference:
pg 9,10, 11

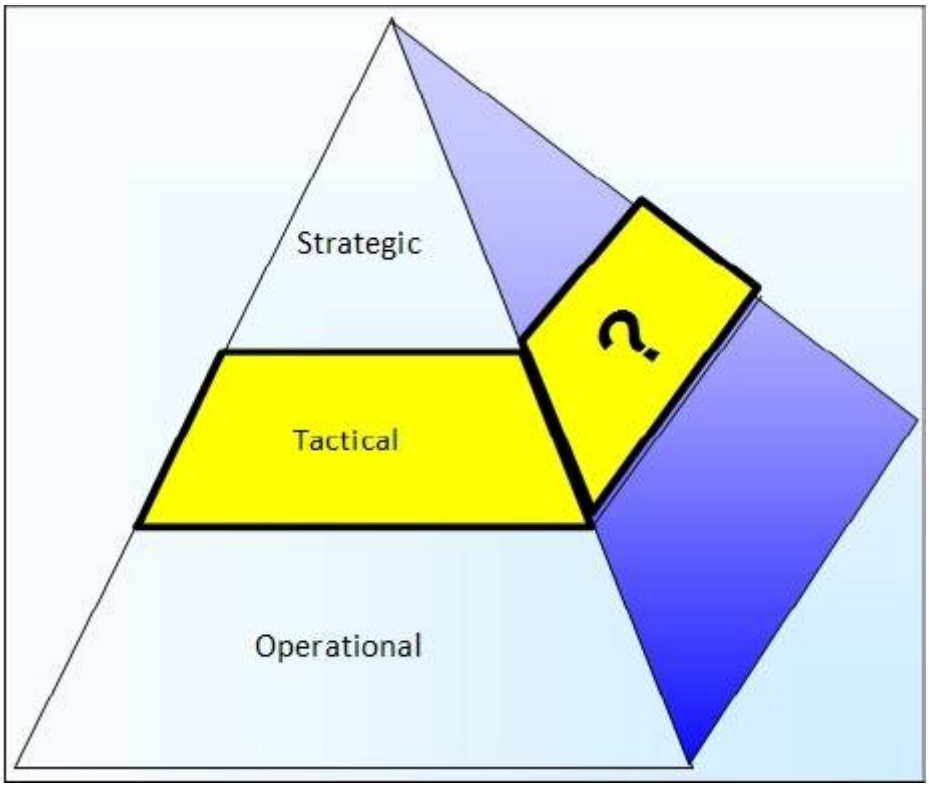
A database is an organized collection of facts and information, typically consisting of two or more related data files. An organization's database can contain information on customers, employees, inventory, competitors' sales, online purchases and much more.

Hardware consists of computer equipment used to perform input, processing, and output activities.

Software consists of the computer programs that govern the operation of the computer. The two types of software are system software, such as Microsoft Windows XP, which controls basic computer operations, including start-up and printing, and applications software, such as Microsoft Office, which allows you to accomplish specific tasks, including word processing and drawing charts. Sophisticated application software, such as Adobe Creative Suite, can be used to design, develop, print, and place professional-quality advertising, brochures, posters, prints and videos on the Internet.

Networks connect computers and equipment in a building, around the country, or around the world to enable electronic communication.

QUESTION 7
Study the following diagram. Which business information systems would typically be placed at the tactical level?



A. Executive Support Systems (ESSs)
B. Transaction Processing Systems (TPSs) and Decision Support Systems (DSSs)
C. Management Information Systems (MISs) and Enterprise Resource Planning Systems (ERPs)
D. DSSs and MISs

Answer: D
Section: (none)

Explanation/Reference:
pg 13, Figure 1.5

Decision support systems (DSSs) and Management Information Systems (MISs) would typically be placed at the tactical level.

Executive Support Systems (ESSs) would be placed at the strategic level.

Transaction Processing Systems (TPSs) and Enterprise Resource Planning Systems (ERPs) would be placed at the operational level.

QUESTION 8
What is the role of an ERP system?

A. To provide support for managing a company's vital business operations for an entire multisite, global organization.
B. To provide support for recording completed business transactions.
C. To provide support to provide routine information to managers and decision makers.
D. To provide support for problem-specific decision making.

Answer: A
Section: (none)

Explanation/Reference:
pg 16

An ERP system is a set of integrated programs that manages the vital business operations for an entire multi-site, global organization.

QUESTION 9
Systems development can include the activity of _____ .

A. building a new manual business system
B. building a new computerized business system
C. modifying a manual business system

Answer: ABC
Section: (none)

Explanation/Reference:
pg 21

Systems development is the activity of creating or modifying business systems.

QUESTION 10
_____ helps determine what supplies are required for the value chain, what quantities are needed to meet customer demand, how the supplies should be processed (manufactured) into finished goods and services, and how the shipment of supplies and products to customers should be scheduled, monitored and controlled.

A. Customer relationship management (CRM)
B. ERM
C. Supply chain management
D. Project management

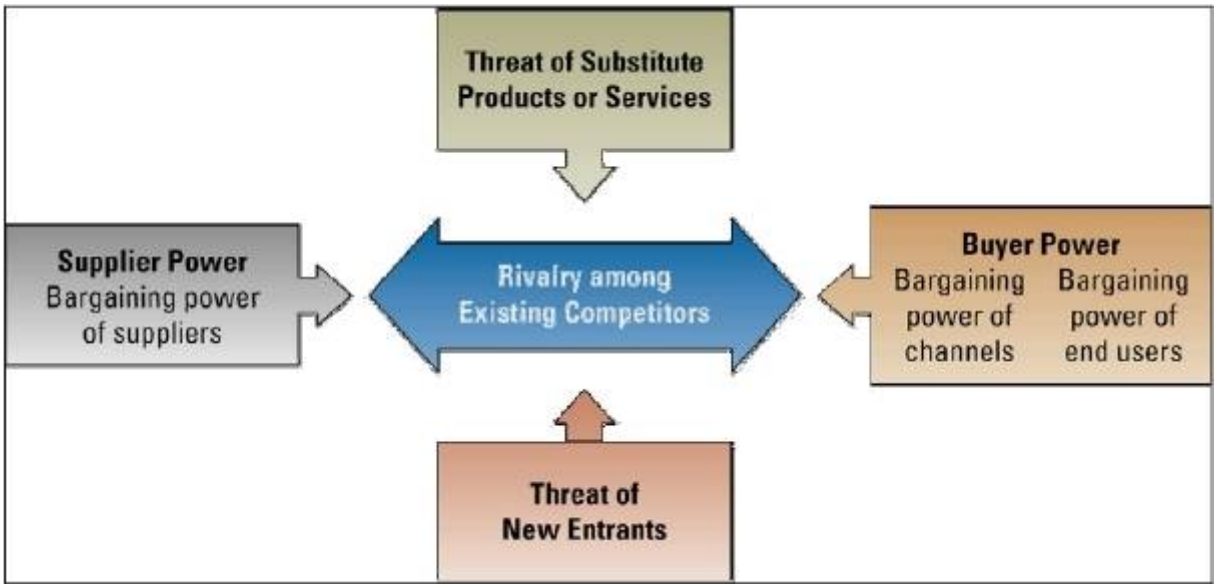
Answer: A
Section: (none)

Explanation/Reference:
pg 3

Supply Chain Management (SCM) and Customer Relationship Management (CRM) are two key parts of managing the value chain. SCM helps determine what supplies are required for the value chain, what quantities are needed to meet customer demand, how the supplies should be processed (manufactured) into finished goods and services, and how the shipment of supplies and products to customers should be scheduled, monitored, and controlled.

CRM programs help a company manage all aspects of customer encounters, including marketing and advertising, sales, customer service after the sale and help retain loyal customers.

QUESTION 11
What does the following diagram represent?



A. Porter's five-forces model
B. Organizational competitive strategy
C. Change model
D. Strategic alliance model

Answer: A
Section: (none)

Explanation/Reference:
pg 27

A number of factors can lead a company to seek to attain a competitive advantage. Michael Porter, a prominent management theorist, suggested a simple but widely accepted model of the competitive forces in an industry, also called the five-forces model.

The five forces include include:
- - Rivalry among existing competitors.
- - Threat of new entrants.
- - Threat of substitute products and services.
- - Bargaining power of buyers.
- - Bargaining power of suppliers.

QUESTION 12
Tanner's Rabbit Farm and Milly's Fur Mittens, Inc. created an agreement to jointly produce fur-lined mittens. This joint production of goods can be viewed as a_____.

A. strategic structure
B. strategic alliance
C. strategic objective
D. product development coalition

Answer: B
Section: (none)

Explanation/Reference:
pg 28

A strategic alliance is an agreement between two or more companies that involves

the joint production and distribution of goods and services.

QUESTION 13
Market share is the percentage of profit that a product or service has in relation to the total market.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg 29

Market share is the percentage of sales that a product or service has in relation to the total market.

QUESTION 14
If a small business earns an additional R10000 per year after investing R500000 into a new Internet-based system, the Return on Investment (ROI) is _____.

A. 2%
B. 20%
C. R20000
D. R60000

Answer: A
Section: (none)

Explanation/Reference:
pg 29

One measure of IS value is return on investment (ROI). This measure investigates the additional profits or b enefits that are generated as a percentage of the investment
in
IS technology. A small business that generates an additional profit of R10 000 per year after investing R500 000 into a new Internet-based system, would have a return on investment of 2% (10 000 / 500 000).

QUESTION 15
Which one of the following is **NOT** a means of measuring the value of an Information System (IS)?

A. earnings growth
B. market share
C. customer awareness and satisfaction
D. productivity

Answer: D
Section: (none)

Explanation/Reference:
pg 29-30

The value of an information system can be measure by:
- Earnings growth
- Market share
- Customer awareness and satisfaction
- Total cost of ownership

- Risk

Productivity is a measure of the output achieved divided by the input required.

QUESTION 16
Programmers help users determine what outputs they need from the system and construct the plans needed to develop the necessary programs that produce these outputs.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg 31

System analysts help users determine what outputs they need from the system and construct the plans nee ded to develop the necessary programs that produce these
outputs.

QUESTION 17
Chief Information Officers (CIOs) require only excellent business skills.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg 33

The role of the chief information officer (CIO) is to employ an IS department's equipment and personnel to help the organization attain its goals. The CIO is a senior manager concerned with the overall needs of the organization, and sets organization-wide policies and plans, manages and acquires information systems. Some of the CIO's top concerns include integrating IS operations with business strategies. Keeping with the rapid pace of technology and defining and assessing the value of systems development projects. The high level of the CIO position reflects that information is one of the organization's most important resources. A CIO works with other high-level officers of an organization, including the finance director and the executive officer, in managing and controlling total corporate resources. CIOs must also work closely with advisory committees, stressing effectiveness and teamwork and viewing information systems as an integral part of the organization's business processes – not an adjunct to the organization. Thus, CIOs need both technical and business skills.

QUESTION 18
Which one of the following is **NOT** a global challenge in information systems?

A. Cultural challenges: Countries and regional areas have their own cultures and customs that can significantly affect individuals and organizations involved in global trade.
B. Language challenges: Language differences can make it difficult to translate exact meanings from one language to another.
C. Infrastructure challenges: Traditional products that are physical or tangible, such as automobile and bicycle can be difficult to deliver to the global market.

D. Currency challenges: The value of different currencies can vary significantly over time, making international trade more difficult and complex.

Answer: C
Section: (none)

Explanation/Reference:
pg 34-35

The global challenges facing information systems include:

- Cultural challenges: Countries and regional areas have their own cultures and customs that can significa ntly affect individuals and organizations involved in global trade.
- Language challenges: Language differences can make it difficult to translate exact meanings from one la nguage to another.
- Time and distance challenges: Time and distance issues can be difficult to overcome for individuals and organizations involved with global trade in remote locations. Large time differences make it difficult to talk to people on the other side of the world. With long distance, it can take days to get a product, a critical part, or a piece of equipment from one location to another location.
- Infrastructure challenges: High-quality electricity and water might not be available in certain parts of the world. Telephone services, Internet connections, and skilled employees might be expensive or not readily available.
- Currency challenges: The value of different currencies can vary significantly over time, making internatio nal trade more difficult and complex.
- Product and service challenges: Traditional products that are physical or tangible, such as an automobile or bicycle can be difficult to deliver to the global market. However, electronic products and electronic services can be delivered to customers el ectronically over the phone, networks, through the Internet or other electronic means. Software, music, b ooks, manuals and help and advice can all be delivered over the Internet.
- Technology transfer issues: Most governments do not allow certain military-related equipment and systems to be sold to some countries. Even so, some believe that foreign companies are stealing the intellectual property, trade secrets, copyrighted materials and counterfeiting products and se rvices.
- State, regional and national laws: Every state, region and country has a set of laws that must be obeyed by citizens and organizations operating in the country. These laws can deal with a variety of issues, including trade secrets, patents, copyrights, pr otection of personal or financial data, privacy and much more. Keeping track of these laws and incorpora ting them into the procedures and computer systems of multinational and transnational organizations ca n be very difficult and time consuming, requiring expert legal advice.
- Trade agreements: Countries often enter into trade agreements with one another.

QUESTION 19
Which **THREE** components determine the capability of a hardware device

A. system performance, cost and control
B. processing power, speed and capacity
C. cost, control and complexity
D. speed, memory and cost

Answer: B
Section: (none)

Explanation/Reference:
pg 52

Processing power, speed and capacity determine the capabilities of a hardware device.

QUESTION 20
Clock speed is measured in Microcode Instructions per Second (MIPs).

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg 52

Clock speed is often measured in megahertz (MHz), or millions of cycles per second. The clock speed for personal computers is in the multiple gigahertz (GHz), or billions of cycles per second range.

QUESTION 21
Which one of the following ranges from the **LEAST** to the **MOST** number of bytes

A. gigabyte (GB); megabyte (MB); terabyte (TB)
B. kilobyte (KB); MB; GB
C. MB; TB; GB
D. KB; GB; MB

Answer: B
Section: (none)

Explanation/Reference:
pg 53,
Table 2.1

Table 2.1 list units for measuring computer storage. The correct option is therefore, Kilobyte (KB); Megabyte (MB); Gigabyte (GB)

QUESTION 22
Which of the following are **DIFFERENCES** between parallel computing and grid computing

A. Parallel computing is the simultaneous execution of the same task on multiple processors to obtain results faster.
B. Grid computing is the use of a collection of computers, often owned by multiple individuals or organizations, to work in a coordinated manner to solve a common problem.
C. Parallel computing is the simultaneous execution of two or more instructions at the same time.
D. Parallel computing is a low-cost approach to grid computing.

Answer: AB
Section: (none)

Explanation/Reference:
pg 53, 54

- Parallel computing is the simultaneous execution of the same task on multiple processors to obtain results faster (a).
- Grid computing is the use of a collection of computers, often owned by multiple individuals or organizatio ns, to work in a coordinated manner to solve a common problem (b).
- Multiprocessing involves the simultaneous execution of two or more instructions at the same time (c).

- Grid computing is a low-cost approach to parallel computing (d).

QUESTION 23
_____parallel processors all execute the same instruction on many data values simultaneously.

A. Multicore
B. Single Instruction/Multiple Data (SIMD)
C. Multiple Instruction/Multiple Data (MIMD)
D. Massive

Answer: B
Section: (none)

Explanation/Reference:
pg 54

Parallel computing is the simultaneous execution of the same task on multiple processors to obtain results faster. Systems with thousands of such processors are known as massively parallel processing systems. There are different approaches to achieving parallel computing.

Single instruction/multiple data (SIMD) parallel processors all execute the same instruction on many data values simultaneously.

Multiple instruction/multiple data (MIMD) parallel processors all execute different instructions.

A multicore microprocessor combines two or more independent processors into a single computer so that they can share the workload and boost processing capacity.

QUESTION 24
Which form of secondary storage is depicted in the diagram below

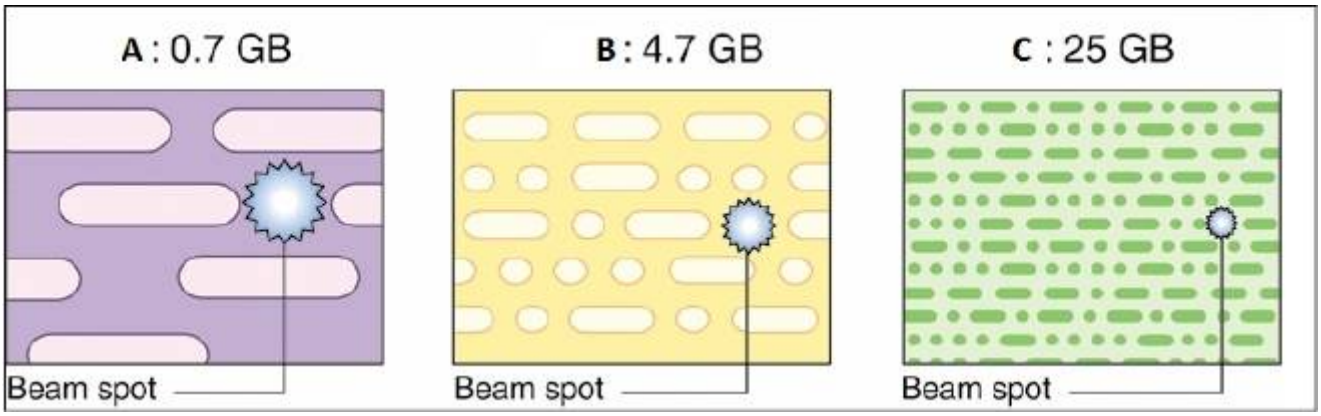
A. magnetic tape
B. magnetic disk
C. Redundant Array of Independent/Inexpensive Disks (RAID)
D. Digital Versatile Disk (DVD)-technology

Answer: B
Section: (none)

Explanation/Reference:
pg 56,57,58,59
Figure 2.2

1. Magnetic disks are coated with iron oxide; they can be thin metallic platters (harddisks) or Mylar film (dis kettes) As with magnetic tape, magnetic disks represent bits using small magnetized areas.
2. Magnetic tape is a type of sequential secondary storage medium, now used primarily for storing backups of databases. Similar to the tape found in audio and videocassettes, magnetic tape is a Mylar film coated with iron oxide.
3. A redundant array of independent/inexpensive disks (RAID) is a method of storing data that generates extra bits of data from existing data, allowing the system to create a 'reconstruction map' so that if a hard drive fails, it can rebuild lost data.
4. A digital versatile disk (DVD) looks like a CD but can store about 135 minutes of digital video or several gigabytes of data.

QUESTION 25
Which secondary storage devices are depicted by the letters 'A', 'B' and 'C' in the following diagram respectively



A. DVD; Compact disk (CD); Blu-Ray disk
B. Blu-Ray disk; DVD; CD
C. CD; DVD; Blu-Ray disk
D. HD-DVD; DVD; CD

Answer: C
Section: (none)

Explanation/Reference:
pg 58, 59

- A common optical disk is the compact disk read-only memory (CDROM) with a storage capacity of about 700 MB of data (A).
- A DVD looks like a CD but can store about 135 minutes of digital video or several gigabytes of data. Whereas a CD ca n hold about 700 MB of data, a single-sided DVD can hold around 4.5 GB, with double-sided DVDs having a capacity of about 9 GB (B).
- The two types of competing high-definition video-disk formats are called HD-DVD and Blu-ray Disk (C). Both formats were originally based on blue-laser technology that stores at least three times as much data as a DVD now holds.7 Traditional magneto-optical (MO), CD, and DVD formats all use red lasers. Because the wavelength of blue light is shorter than that of red light, the beam from a blue laser makes a much smaller spot on the recording layer of a disk. A smaller spot means less space is needed to record one bit of data, so more data can be stored on a disk. The primary use for these new formats is in home entertainment equipment to store high definition video, though these formats can also store computer data.

QUESTION 26
Which input devices do the following statements respectively refer to

STATEMENT
By touching the screen with a_____, it is possible to activate a com perform a task, enter handwritten notes and draw objects and figures.
The development of the_____was as a result of banks becoming sw applications, bank statements, etc.
One application of _____ is to place a microchip on retail items track the inventory on the shelves to determine when shelves should be rest

A. light pen; magnetic ink character recognition (MICR); point of sale (POS)
B. barcode scanner; magnetic stripe card; optical character recognition (OCR)
C. pen input device; MICR; radio-frequency identification (RFID) technology
D. mouse; MICR; scanning devices

Answer: C
Section: (none)

Explanation/Reference:
pg 64,65
Figure 2.7

- By touching the screen with a pen input device, it is possible to activate a command or cause the comput er to perform a task, enter handwritten notes and draw objects and figures.
- In the 1950's, banks became swamped with paper checks, loan applications, bank statements, etc., and as a result, magnetic ink character recognition (MICR) devices were developed.
- Radio-frequency identification (RFID) technology employs a microchip with an antenna that broadcasts its unique identifier and location to receivers.
  One popular application of RFID is to place a microchip on retail items and install in-store readers that track the inventory on the shelves to determine when shelves should be restocked.
- Point-of-sale (POS) devices are terminals in retail operations to enter sales information into the computer system.
- A bar-code scanner employs a laser scanner to read a bar-coded label.
- Most optical character recognition (OCR) devices use reflected light to recognize various characters.
- A keyboard and mouse are two of the most common devices for computer input.
- Image and character data can be input by using a scanning device.

QUESTION 27
A character is a dot of color on a photo image or a point of light on a display screen.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg

A pixel is a dot of colour on a photo image or a point of light on a display screen.

QUESTION 28
Which one of the following statements regarding computer systems types is **TRUE**

A. Portable computers are single-user computers that provide ease of portability because of their smaller size, some of which are as small as a credit card.
B. Midrange computers are large, powerful computers often shared by hundreds of concurrent users connected
C. Thin clients are low-cost, stripped-down versions of desktop computers. They do not have the storage capacity or computing power of typical desktop computers, nor do they need it for the role they play.
D. A computer server is a computer designed for a specific task, such as network or Internet applications. Servers are the most powerful computer systems, with the fastest processing speeds.

Answer: C
Section: (none)

Explanation/Reference:
pg 69,71,72
Figure 2.11
Figure 2.12

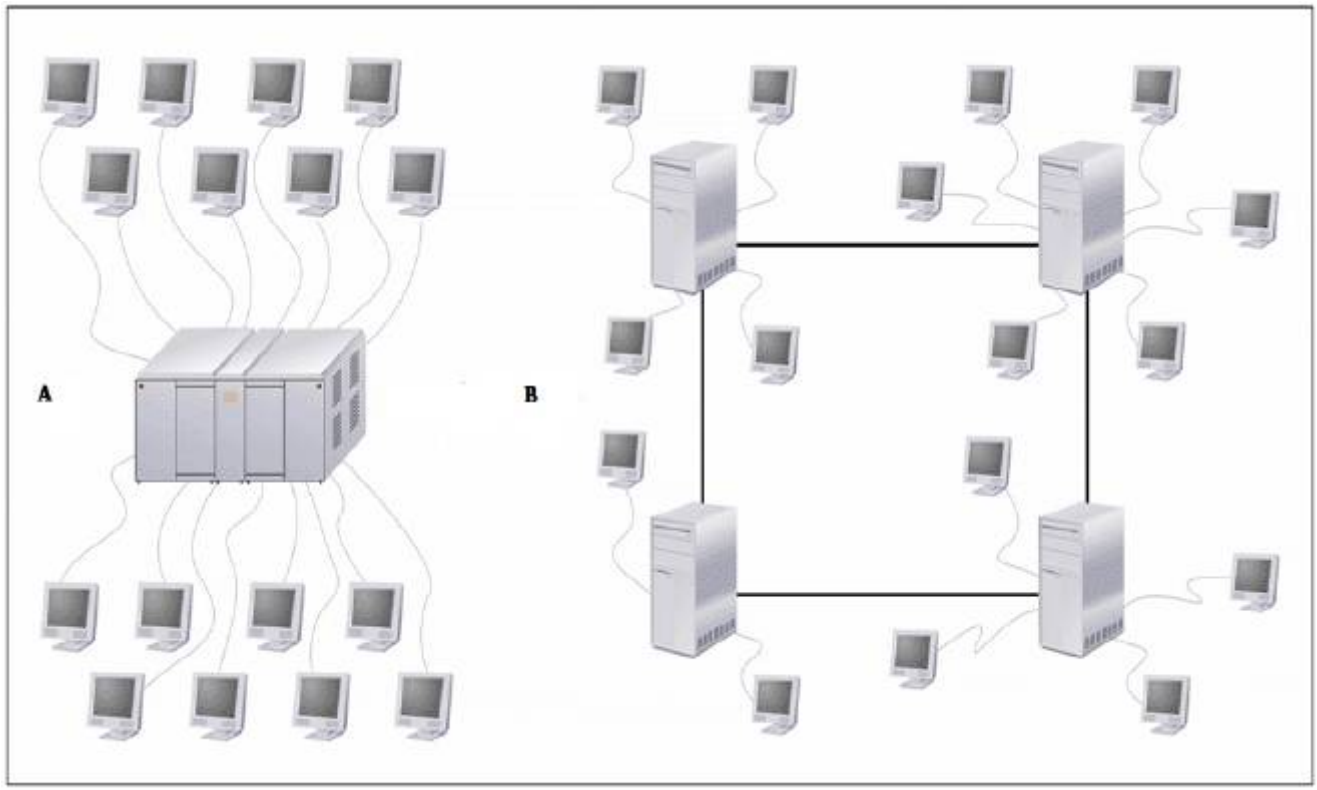
A thin client is a low-cost, centrally managed computer with no extra drives, such as a CD or DVD drive, or expansion slots. These computers have limited capabilities and perform only essential applications, so they remain 'thin' in terms of the client applications they include. These stripped-down versions of desktop computers do not have the storage capacity or computing power of typical desktop computers, nor do they need it for the role they play.

Handheld computers are single-user computers that provide ease of portability because of their small size – some are as small as a credit card.

A mainframe computer is a large, powerful computer shared by dozens or even hundreds of concurrent users connected to the machine over a network

Supercomputers are the most powerful computers with the fastest processing speed and highest performance. They are special-purpose machines designed for applications that require extensive and rapid computational capabilities.

QUESTION 29
Which combination of Operating Systems (OSs) is depicted in 'A' and 'B' respectively



A. Single computer with a single user; single computer with multiple users
B. Single computer with multiple users; multiple computers
C. Server farm; single computer with multiple users
D. Multiple computers; networked computers

Answer: B
Section: (none)

Explanation/Reference:
pg 73

The various combinations of OS, computers, and users include the following:

- Single computer with a single user: This system is commonly used in a personal computer or a handheld computer that allows one user at a time.

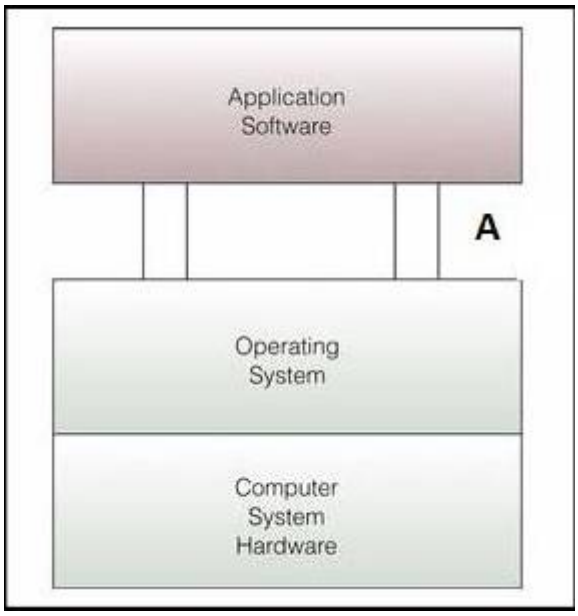
- Single computer with multiple users (Figure A): This system is typical of larger, mainframe computers that can accommodate hundreds or thousands of people, all using the computer at the same time.

- Multiple computers (Figure B): This system is typical of a network of computers, such as a home network with several computers attached or a large computer network with hundreds of computers attached around the world.

- Special-purpose computers: This system is typical of a number of special-purpose computers, such as those that control sophisticated military aircraft, the space shuttle, and some home appliances.

QUESTION 30

_____ denoted by the letter 'A' in the following diagram links application software to the operating system



A. kernel
B. workgroup
C. utility software
D. Application Program Interface (API)

Answer: D
Section: (none)

Explanation/Reference:
pg 73,74,75
Figure 2.14

To run, applications request services from the Operating System (OS) through a defined application program interface (API). Programmers can use APIs to create application software without having to understand the inner workings of the OS.

The kernel, as its name suggests, is the heart of the OS and controls the most critical processes. The kernel ties all of the OS components together and regulates other programs.

QUESTION 31
A product manager wishes to run a word processing document to type a document, a spreadsheet to calculate sales figures and a presentation program to draw up slides for a meeting all at the same time. Which **FEATURE** of the operating system will enable him to do this

A. multiprocessing
B. time-sharing
C. multitasking
D. parallel computing

Answer: C
Section: (none)

Explanation/Reference:
pg 75

The task-management features of today's OS manage all processing activities. Task management allocates computer resources to make the best use of each system's

assets. Task-management software can permit one user to run several programs or tasks at the same time (multitasking) and allow several users to use the same computer at the same time (time-sharing).

Refer to question 23 for the definition of parallel computing.
Parallel computing is the simultaneous execution of the same task on multiple processors to obtain results faster. Systems with thousands of such processors are known as massively parallel processing systems. There are different approaches to achieving parallel computing

Refer to question 22 for the definition of multiprocessing.
Multiprocessing involves the simultaneous execution of two or more instructions at the same time

QUESTION 32
Linux is actually only the ____ of an OS.

A. source code
B. kernel
C. application interface
D. workgroup

Answer: B
Section: (none)

Explanation/Reference:
pg 78

Linux is actually only the kernel of an OS, the part that controls hardware, manages files, separates process es and so forth.

QUESTION 33

Windows Embedded
Netware
Z/OS

A representation of the above table would best be given by _____, _____and _____ computer operating systems.

A. mobile; workgroup; enterprise
B. enterprise; personal; workgroup
C. consumer; enterprise; personal
D. workgroup; consumer; personal

Answer: A
Section: (none)

Explanation/Reference:
pg 79,80

- Windows Embedded is a mobile operating system.
- NetWare is a workgroup operating system.
- z/Os is classified as an enterprise computer operating system.

QUESTION 34
Which one of the following is **NOT** a **DISADVANTAGE** of proprietary software

A. It can take a long time and significant resources to develop required features.
B. Software may not match current work processes and data standards
C. In-house system development staff may become hard pressed to provide the required level of ongoing support and maintenance because of pressure to get onto other new projects.
D. There is more risk concerning the features and performance of the software that has yet to be developed

Answer: B
Section: (none)

Explanation/Reference:
pg 84
Table 2.3

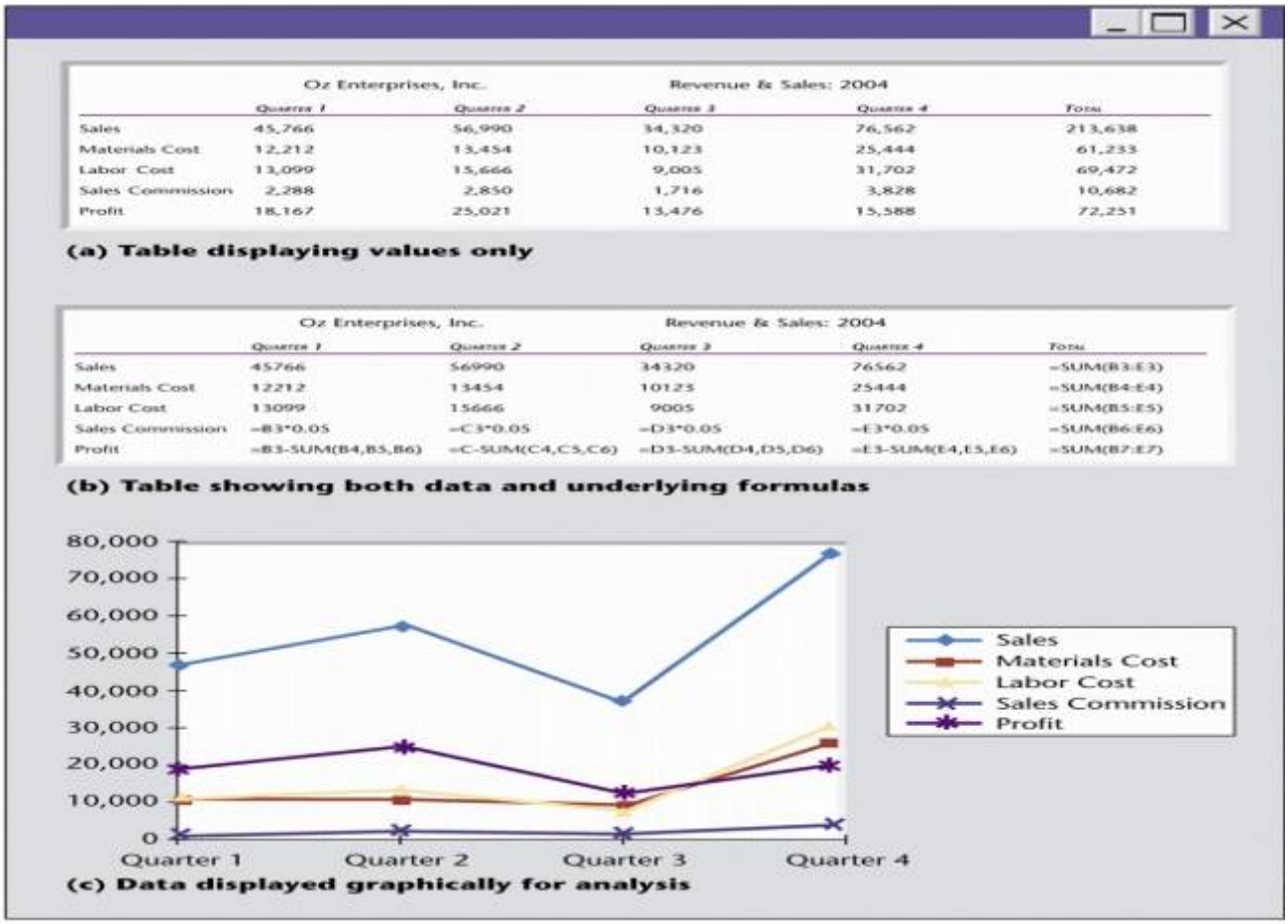
A company can develop a one-of-a-kind program for a specific application called proprietary software.

The following table lists the advantages and disadvantages of proprietary software.

Software that might not match current work processes and data standards is not a disadvantage of proprietary software.

PROPRIETARY SOFTWARE	
ADVANTAGES	**DISADVANTAGES**
You can get exactly what you need in terms of features, reports, and so on.	It can take a long time and significant resources to develop required features.
Being involved in the development offers control over the results.	In-house system development staff may become hard pressed to provide the required level of ongoing support and maintenance because of pressure to move on to other new projects.
You can modify features that you might need to counteract an initiative by competitors or to meet new supplier or customer demands. A merger with or acquisition of another firm also requires software changes to meet new business needs.	There is more risk concerning the features and performance of the software that has yet to be developed.

QUESTION 35
The following diagram is an example of a_____ personal application software.



A. word processing
B. database
C. desktop publishing
D. spreadsheet

Answer: D
Section: (none)

Explanation/Reference:
pg 85,86,87
Figure 2.19
Figure 2.20
Table 2.4

The diagram is an example of spreadsheet personal application software.

Spreadsheets are powerful tools for individuals and organizations. Features of spreadsheets include graphics, limited database capabilities, statistical analysis, built-in business functions and much more

Word processing applications are installed on most PCs today. These applications come with a vast array of features, including those for checking spelling, creating tables, inserting formulas, creating graphics and much more.

Database applications are ideal for storing, manipulating and retrieving data, and are central to most information systems. These applications are particularly useful when you need to manipulate a large amount of data and produce reports and documents.

Desktop publishing entails the usage of personal computers and high-resolution

printers to create high-quality printed output, including text and graphics; various styles of pages can be laid out; art and text files from other programs can also be integrated into “published” pages.

- Refer to Table 2.4 for further examples of personal productivity software.

QUESTION 36
Software suites can include

A. word processors
B. graphics programs and compilers
C. interpreters and spreadsheets
D. communication tools and web development tools

Answer: AD
Section: (none)

Explanation/Reference:
pg 88,89,
Figure 2.23
.
A software suite is a collection of single application programs packaged in a bundle. As such, software suites represent an economical way for small businesses to get powerful applications. Software suites can include word processors (a), spreadsheets, database management systems, graphics programs, communications tools, web development tools (d) and more.

QUESTION 37
The term ____ is used to describe a set of rules associated with a programming language.

A. attribute
B. record
C. bug
D. syntax

Answer: D
Section: (none)

Explanation/Reference:
pg 90, 102

Each programming language uses symbols that have special meaning. Each language also has its own set of rules, called the syntax of the language. The language syntax dictates how the symbols should be combined into statements capable of conveying meaningful instructions to the CPU.

A software bug is a defect in a computer program that keeps it from performing as it is designed to perform.

A record is a collection of related data field.

A relational database is made up of a number of tables. In loose terms, each table stores the data about someone or something of interest to the firm. This someone or something is known as an entity. The rows in a table collect together all the data about one specific entity. For example, in the customer table, each row stores all the

data about one particular customer – Jane Smith for instance, or Desmond Paton.

These rows are known as records. The columns in a table are the specific items of data that get stored, for example, first name, and surname or telephone number. These columns are known as fields or attributes.

QUESTION 38
The following table represents a database.

If Employee# is a unique number, then the area in the table above represented by label 'A' is a_____ __ Label 'B' represents _____.

A. secondary key; the data items
B. primary key; all attributes (fields)
C. data item; the primary key
D. record; a foreign key

Answer: B
Section: (none)

Explanation/Reference:
pg 102,103,105

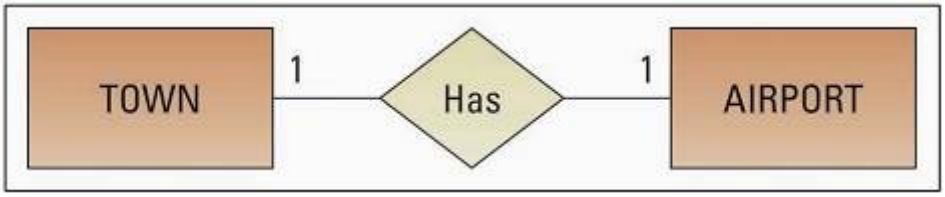
A primary key is a field in a table that is unique (A) – each record in that table has a different value in the primary key field. The primary key is used to uniquely identify each record and to create relationships between tables.

A relational database is defined as a series of related tables, stored together with a minimum of duplication to achieve consistent and controlled pool of data. A relational database is made up of a number of tables. In loose terms, each table stores the data about someone or something of interest to the firm. This someone or something is known as an entity. The rows in a table collect together all the data about one specific entity. These rows are known as records. The columns in a table are the specific items of data that get stored, for example, first name, surname or telephone number. These columns are known as fields or attributes (B).

When a primary key is posted into another table to create a relationship between the two, it is known as a foreign key.

QUESTION 39

What aspect of designing relational databases is depicted in the following diagram?



A. degree
B. cardinality
C. optionality
D. index

Answer: B
Section: (none)

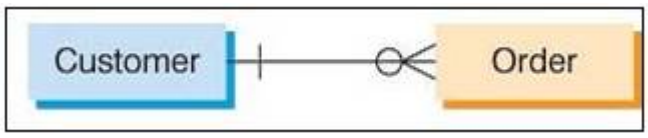
Explanation/Reference:
pg 106,
Figure 3.3

The cardinality of a relationship is whether each entity in the relationship is related to one or more than one of the other entities.

The degree of a relationship is simply how many entities are involved, and this figure is often two.

The optionality documents whether the relationship must exist for each entity, or whether it is optional.

QUESTION 40
Which binary relationship is depicted in the following diagram-



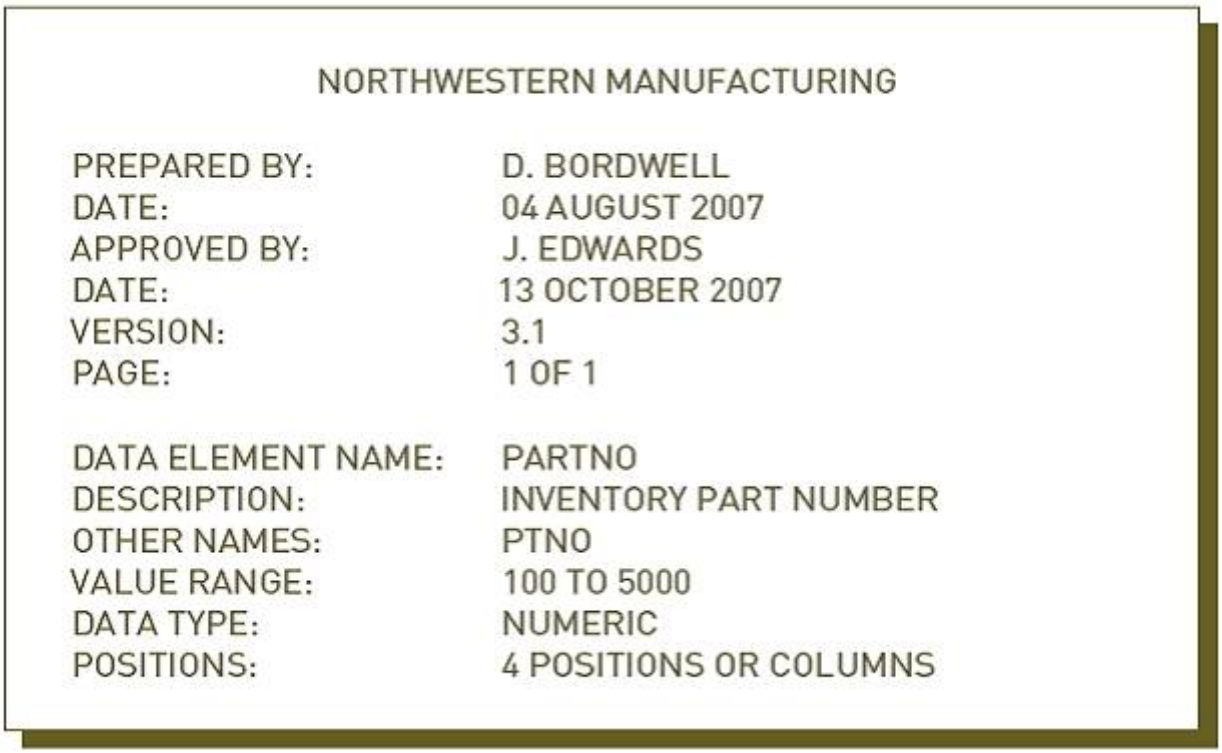
A. Many-to-many relationship.
B. One-to-many relationship, many side obligatory to one side.
C. One-to-one relationship, optional on one side
D. One-to-many relationship, many side optional to one side.

Answer: B
Section: (none)

Explanation/Reference:
pg 108,
Figure 3.5

The diagram depicts a one-to-many relationship, many side obligatory to one side binary relationship.

QUESTION 41
The following diagram illustrates a typical _____ entry.



A. data dictionary
B. Data Definition Language (DDL)
C. Data Manipulation Language (DML)
D. data application

Answer: A
Section: (none)

Explanation/Reference:
pg 109, 111

A data dictionary is a detailed description of all the data used in the database.

A data definition language (DDL) is a collection of instructions and commands used to define and describe data and relationships in a specific database.

A data manipulation language (DML) is the commands used to manipulate the data in a database.

QUESTION 42
The position of Database Administrator (DBA) is a non-technical position responsible for defining and implementing consistent principles for a variety of data issues.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg 114

A data administrator is a non-technical person responsible for defining and implementing consistent principles for a variety of data issues.

A database administrator (DBA) is expected to have a clear understanding of the fundamental business of the organization, be proficient in the use of selected database management systems, and stay abreast of emerging technologies and new design approaches. The role of the DBA is to plan, design, create, operate, secure, monitor and maintain databases.

QUESTION 43
The Informed Resources Corporation developed an automated computer program that discovers patterns and relationships within data stored in data warehouses. This program conducts_____.

A. data analysis and design
B. data modeling
C. data mart development
D. data mining

Answer: D
Section: (none)

Explanation/Reference:
pg 119

Data mining is the process of analyzing data to try to discover patterns and relationships within the data.

QUESTION 44
Which of the following statements regarding Online Analytical Processing (OLAP) are CORRECT-OLAP_____

A. supports top-down, query-driven data analysis.
B. supports bottom-up, discovery-driven data analysis.
C. Supports data analysis and decision making
D. identifies facts and conclusions based on patterns discovered.

Answer: AD
Section: (none)

Explanation/Reference:
pg 123-124,
Table 3.4

Online Analytical Processing (OLAP) supports top-down, query driven data analysis (a) and supports data analysis and decision making (c).

Data mining supports bottom-up, discovery-driven data analysis (b) and identifies facts and conclusions based on patterns discovered (d).

QUESTION 45
An object-oriented database uses _____ to provide a user interface and connections to other programs.

A. an Object-Oriented Database Management System (OODBMS)
B. Java
C. Visual Basic
D. an Object-Relational Database Management System (ORDBMS)

Answer: A
Section: (none)

Explanation/Reference:
pg 125, 156

An object-oriented database uses an object-oriented database management system (OODBMS) to provide a user interface and connection to other programs.

Java is an object-oriented programming language from Sun Microsystems based on C++ that allows small programs (applets) to be embedded within an HTML document.

Visual languages use a graphical or visual interface for program development. Visual Basic was one of the first visual programming languages.

An object-relational database management system (ORDBMS) provides a complete set of relational database capabilities plus the ability for third parties to add new data types and operations to the database.

QUESTION 46
The term ____ refers to a telecommunications system that supports a much lower rate of data exchange than broadband.

A. router
B. gateway
C. distributed communications
D. narrowband communications

Answer: D
Section: (none)

Explanation/Reference:
pg 135,136,147
Table 4.1

Broadband communications can exchange data very quickly, as opposed to narrowband communications, which supports a much lower rate of data exchange.

A router forwards data packets across two or more distinct networks toward their destinations through a process known as ‘routing’.

A gateway is a network device that serves as an entrance to another network.

QUESTION 47
Identify the guided transmission media type depicted in the following diagram.

A. twisted-pair wire
B. coaxial cable
C. fibre-optic cable
D. infrared

Answer: C
Section: (none)

Explanation/Reference:
pg 135, 136
Table 4.1
Table 4.2

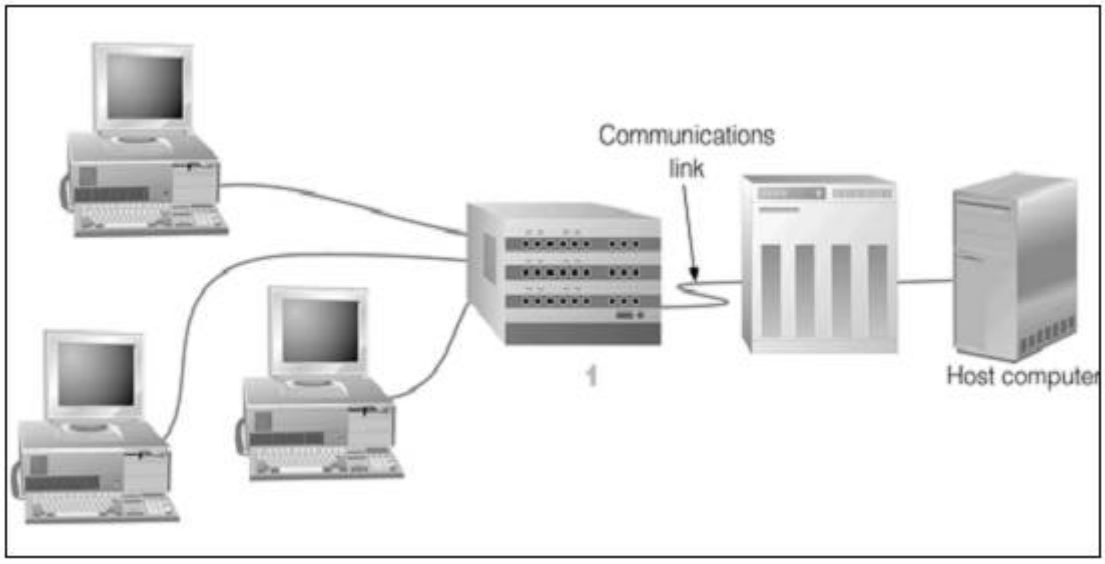
The guided transmission media type depicted in the diagram is fibre-optic cable as it has many extremely thin strands of glass bound together in a sheathing.

Twisted pair consists of twisted pairs of copper wire, shielded or unshielded.

Coaxial cable consists of inner conductor wire surrounded by insulation.

Infrared is signals sent through air as light waves.

QUESTION 48



In the figure depicted above, “1” denotes a _____.

A. multiplexer
B. router
C. front-end processor
D. gateway

Answer: A
Section: (none)

Explanation/Reference:
pg 137,
Figure 4.3

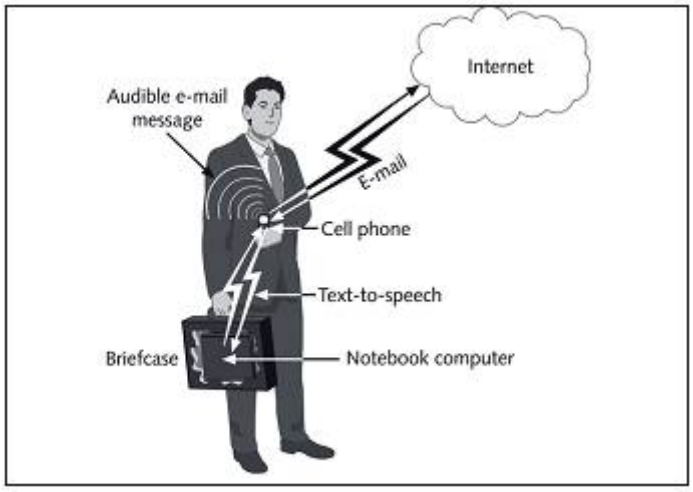
A multiplexer is a device that encodes data from two or more data sources onto a single communications channel, thus reducing the number of communications channels needed and therefore, lowering telecommunications costs.

Front-end processors are special-purpose computers that manage communications to and from a computer system serving hundreds or even thousands of users.

A router forwards data packets across two or more distinct networks toward their destinations through a process known as 'routing'.

A gateway is a network device that serves as an entrance to another network.

QUESTION 49
What type of network is depicted in the following diagram?



A. Local Area Network (LAN)
B. Wide Area Network (WAN)
C. Personal Area Network (PAN)
D. Metropolitan Area Network (MAN)

Answer: C
Section: (none)

Explanation/Reference:
pg 139-140, 142-143
Figure 4.5
,
A personal area network (PAN) is a wireless network that connects information technology devices within a range of three metres or so.

A network that connects computer systems and devices within a small area, such as an office, home or several floors in a building is a local area network (LAN).

A wide area network (WAN) is a telecommunications network that connects large geographic regions.

A metropolitan area network (MAN) is a telecommunications network that connects users and their computers in a geographical area that spans a campus or city.

QUESTION 50
Mass Mart owns chains of supermarkets that operate independently in Pretoria, Cape Town and Durban. W hich PROCESSING STRATEGY would be most suitable for Mass Mart?

A. centralized processing
B. decentralized processing
C. distributed processing
D. batch processing

Answer: B
Section: (none)

Explanation/Reference:
pg 143,144,175,176,
Figure 5.3
(a)

With decentralized processing, processing devices are placed at various remote locations. Each computer system is isolated and does not communicate with another system. Decentralized systems are suitable for companies that have independent operating divisions.

Centralized processing can be defined as a processing alternative in which all processing occurs in a single location or facility.

With distributed processing, computers are placed at remote locations but connected to each other via telecommunications device.

With batch processing systems, business transactions are accumulated over a period of time and prepared for processing as a single unit or batch.

QUESTION 51
Which one of the following statements regarding communications protocols is **INCORRECT**?

A. WiMAX offers faster data speeds and broader coverage than Wi-Fi. It also offers a higher quality of service than Wi-Fi by supporting applications such as digital life-size videoconferencing.

B. Conventional wireless communications employs a single antenna at the source and another single antenna at the destination. However, with this system, a signal can suffer from multipath effects when it encounters obstructions (e.g., buildings, hills). Using two or more antennas or MIMO (multiple input, multiple output), along with the transmission of multiple signals (one for each antenna) at the source and the destination, eliminates these multipath problems

C. Ultra Wideband (UWB) transmissions consist of a stream of pulses only picoseconds wide. These extremely short impulses result in high frequencies spread over a wide band.

D. The International Telecommunications Union (ITU) established a single standard for cellular networks in 1999. This standard was called IMT-2000 at that time and is now referred to as 4G. 4G provides for faster transmission speeds in the range of 2–4 Mbps that will enable applications such as VoIP, video telephony, mobile multimedia, and interactive gaming.

Answer: D
Section: (none)

Explanation/Reference:
pg 146

The International Telecommunications Union (ITU) established a single standard for mobile networks in 1999. The goal was to standardize future digital wireless communications and allow global roaming with a single handset. Called IMT-2000, now referred to as 3G, this standard provides for faster transmission speeds in the range of 2 – 4 Mbps that will enable applications such as VoIP, video telephony, mobile multimedia, and interactive gaming.

Options 1 – 3 are CORRECT.

QUESTION 52
Which of the following statements regarding Internet Applications are INCORRECT?

A. The World Wide Web was developed by Linus Torvalds at CERN, the European Organization for Nuclear Research in Geneva.
B. The Web is a menu-based system that uses the peer-to-peer network model.
C. The World Wide Web is a collection of tens of thousands of independently owned computers that work together as one in an Internet service.
D. The Extensible Markup Language (XML) is the standard page description language for web pages.

Answer: ABD
Section: (none)

Explanation/Reference:
pg 151,152

- The World Wide Web was developed by Tim Berners-Lee at CERN, the European Organization for Nuclear Research in Geneva (a).
- The Web is a menu-based system that uses the client/server model (b).
- The World Wide Web (web, WWW, or W3) has grown to a collection of tens of thousands of independently owned computers that work together as one in an Internet service (c).
- Hypertext Markup Language (HTML) is the standard page description language for web pages (d).

QUESTION 53
In the following diagram, 'A' is an example of _____ code and 'B' is an example of _____ _____code.

Web content	A	B
Reebok® Classic Ace Tennis Shoe **$49.95** Soft leather tennis shoe. Lightweight EVA molded midsole. Rubber outsole. China.	Reebok® Classic Ace Tennis Shoe $49.95 <table width="100%" border="1"><tr><td>Soft leather tennis shoe. Lightweight EVA molded midsole. Rubber outsole. China. </td></tr></table>	**<product type="shoes">** **<name>** Reebok Classis Ace Tennis Shoe **</name>** **<price>$49.95</price>** **<description>** Soft leather tennis shoe. Lightweight EVA molded midsole. Rubber outsole. China. **</description>** **</product>**

A. Hypertext Markup Language (HTML); Extensible Markup Language (XML)
B. XML; HTML

Answer: A
Section: (none)

Explanation/Reference:
pg 152,153,
Figure 4.12

Hypertext Markup Language (HTML) (A) is the standard page description language for web pages. One way to think about HTML is as a set of highlighter pens that you use to mark up plain text to make it a web page – one colour for the headings, another for bold, and so on. The HTML tags let the browser know how to format the text: as a heading, as a list, or as main text, for example. HTML also tells whether pictures, videos, and other elements should be inserted, and where they should go. Users mark up a page by placing HTML tags before and after a word or words. For example, to turn a sentence into a heading, you place the <h1> tag at the start of the sentence. At the end of the sentence, you place the closing tag </h1>. When you view this page in your browser, the sentence will be displayed as a heading. So, an HTML file is made up of two things: text and tags. The text is your message, and the tags are codes that mark the way words will be displayed. All HTML tags are enclosed in a set of angle brackets (< and >), such as <h2>. The closing tag has a forward slash in it, such as for closing bold.

Extensible Markup Language (XML) (B) is a markup language for web documents containing structured information, including words and pictures. XML does not have a predefined tag set. With XML, web documents contain the content of a web page. The formatting of the content is contained in a separate style sheet. A few typical instructions in XML follow:
<chapter>Hardware
<topic>Input Devices

<topic>Processing and Storage Devices
<topic>Output Devices

QUESTION 54
Which one of the following statements regarding File Transfer Protocol (FTP) is INCORRECT?

A. FTP, also called remote logon enables you to log on to other computers on the Internet to gain access to their publicly available files.
B. Using FTP, users can copy files from one computer to another.
C. One can use FTP to gain access to a wealth of free software on the Internet.
D. FTP can also be used to upload or download content to a website.

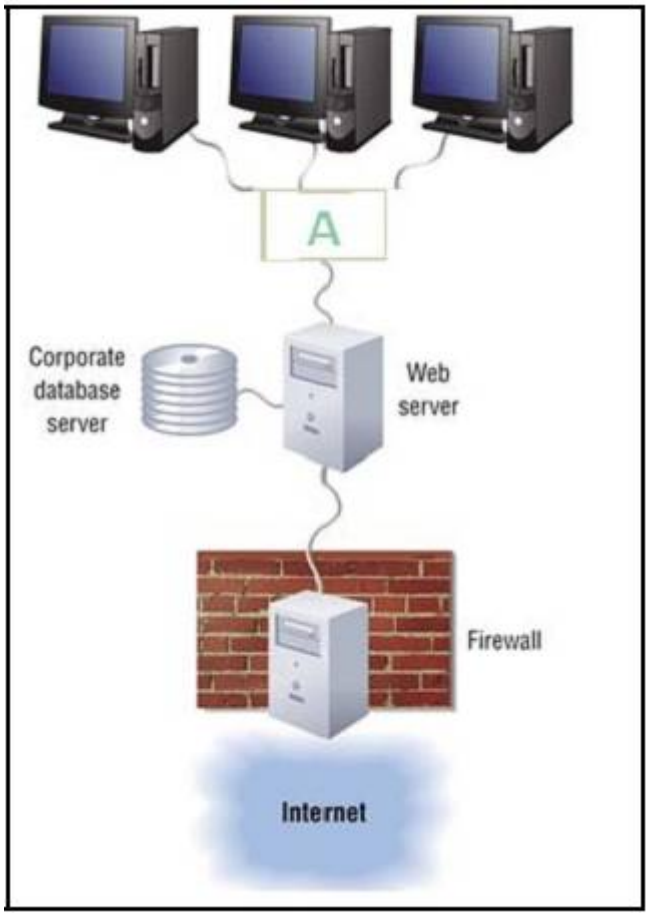
Answer: A
Section: (none)

Explanation/Reference:
pg 158

File Transfer Protocol (FTP) is a protocol that describes a file transfer process between a host and a remote computer. Using FTP, users can copy files from one computer to another. Companies, for example, use it to transfer vast amounts of business transactional data to the computers of its customers and suppliers. You can also use FTP to gain access to a wealth of free software on the Internet. FTP can be used to upload or download content to a website.

Telnet is a terminal emulation protocol that enables you to log on to other computers on the Internet to gain access to their publicly available files. Telnet is particularly useful for perusing library holdings and large databases. It is also called 'remote logon'.

QUESTION 55
In the following diagram, the Web server provides confidential data to LAN users, while keeping the data saf e from those outside the organization through the use of a firewall. The letter 'A' denotes a (n) _____ ____ .



A. Virtual Private Network (VPN)
B. tunnelling
C. extranet
D. intranet

Answer: D
Section: (none)

Explanation/Reference:
pg 158,159,
Figure 4.15

An intranet is an internal company network built using Internet and World Wide Web standards and products. Employees of an organization use it to gain access to company information.

A rapidly growing number of companies offer limited access to their intranet to selected customers and suppliers. Such networks are referred to as extranets, and connect people who are external to the company. An extranet is a network that links selected resources of the intranet of a company with its customers, suppliers, or other business partners.

Secure intranet and extranet access applications usually require the use of a virtual private network (VPN). A virtual private network (VPN) is a secure connection between two points on the Internet. VPNs transfer information by encapsulating traffic in IP packets and sending the packets over the Internet, a practice called tunneling.

Exam B

QUESTION 1
A manufacturing firm seeks to have no more than 1 percent defective parts. This objective can be considere d a system ____.

A. efficiency measure
B. performance standard
C. effectiveness measure
D. tactical goal

Answer: B
Section: (none)

Explanation/Reference:
pg4.5,
Figure 1.1

A system **performance standard** is a specific objective of the system. For example, a system performance standard for a marketing campaign might be to have each sales representative sell €100 000 of a certain type of product each year. A system performance standard for a manufacturing process might be to provide no more than 1 percent defective parts.

Efficiency is a measure of what is produced divided by what is consumed.

Effectiveness is a measure of the extent to which a system achieves its goals.

QUESTION 2
Processing does NOT include

A. making calculations
B. comparing data and taking alternative actions
C. storing data for future use
D. entering of data

Answer: D
Section: (none)

Explanation/Reference:
pg

Processing means converting or transforming input into useful outputs.

Processing can involve making calculations, comparing data and taking alternative actions, and storing data for future use.

Processing does NOT entail entering of data.

QUESTION 3
From the list below, how many are NOT characteristics of a valuable information system-

- - accuracy
- - efficiency
- - completeness
- - complexity

- - effectiveness
- - value

A. 2
B. 5
C. 3
D. 4

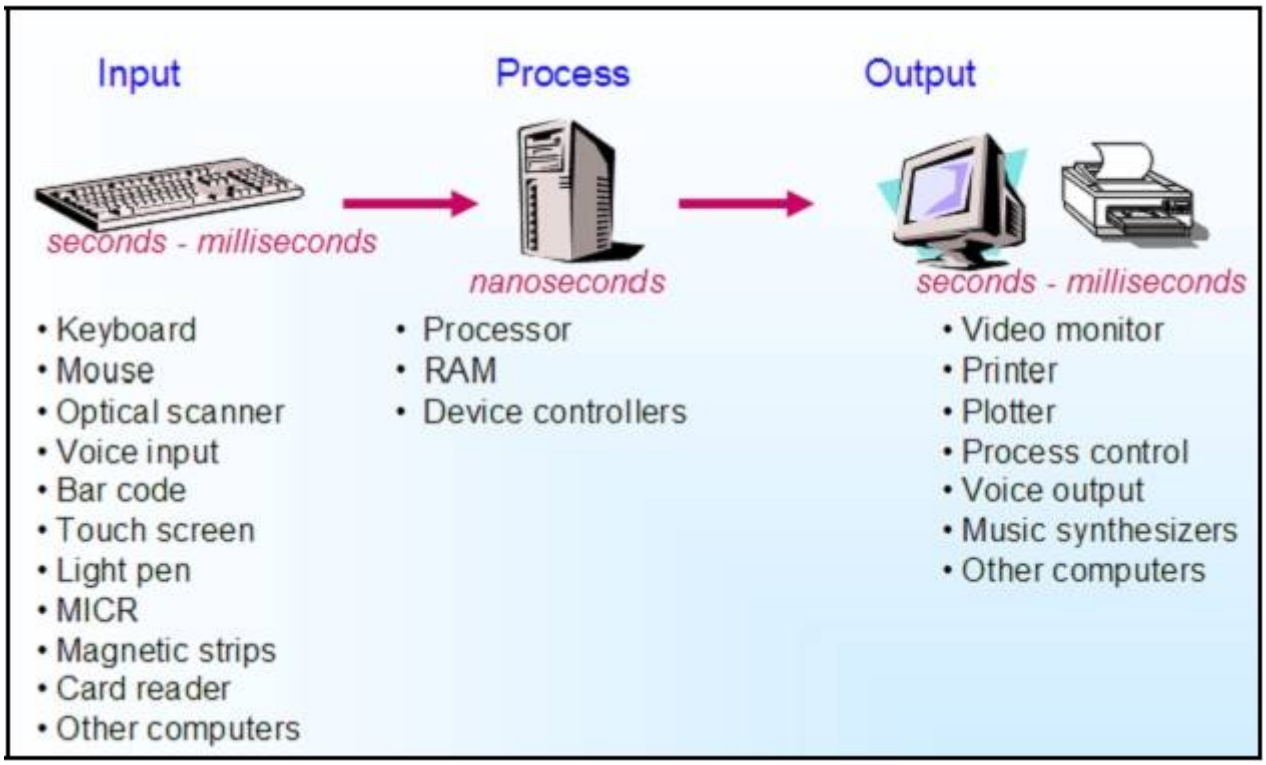
Answer: D
Section: (none)

Explanation/Reference:
pg

The characteristics of valuable information include:
- Accessible
- Accurate
- Complete
- Economical
- Flexible
- Relevant
- Reliable
- Secure
- Simple
- Timely
- Verifiable

Efficiency, complexity, effectiveness and value are NOT characteristics of valuable information.

QUESTION 4
Study the following diagram. Which component of a Computer-Based Information System (CBIS) is denoted by the diagram-



A. Processing cycle
B. Telecommunications
C. Hardware
D. Software

Answer: C
Section: (none)

Explanation/Reference:
pg

Hardware consists of computer equipment used to perform input, processing, and output activities. Input devices include keyboards, mice and other pointing devices, automatic scanning devices and equipment that can read magnetic ink characters. Processing devices include computer chips that contain the central processing unit and main memory. The many types of output devices include printers and computer screens.

Software consists of the computer programs that govern the operation of the computer. The two types of software are system software, such as Microsoft Windows XP, which controls basic computer operations, including start-up and printing, and applications software, such as Microsoft Office, which allows you to accomplish specific tasks, including word processing and drawing charts

Telecommunications is the electronic transmission of signals for communications, which enables organizations to carry out their processes and tasks through computer networks.

QUESTION 5
Organizations are placing important databases on the Internet. This makes them accessible to many, including unauthorized users.

A. True
B. False

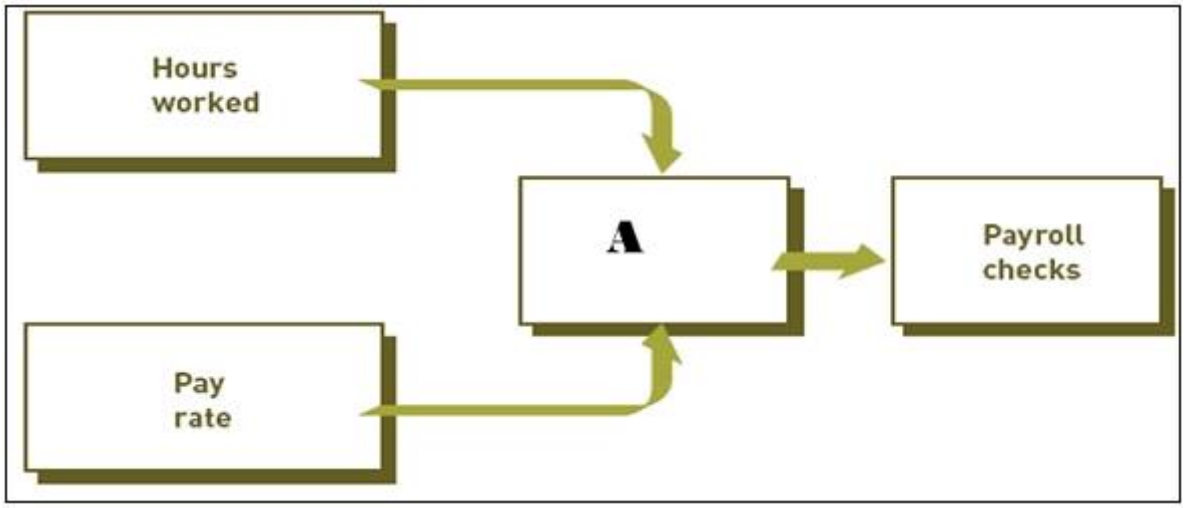
Answer: A
Section: (none)

Explanation/Reference:
pg

Organizations are placing important databases on the Internet, which makes them accessible to many, inclu ding unauthorized users.

QUESTION 6
Question 6

Which business information system is depicted by the letter 'A' in the following diagram-



A. A payroll transaction processing system.
B. A payroll decision support system.
C. A payroll management information system.
D. A payroll knowledge management system.

Answer: A
Section: (none)

Explanation/Reference:
pg

One of the first business systems to be computerized was the payroll system.

The primary inputs for a payroll Transaction Processing System (TPS) are the number of employee hours worked during the week and the pay rate. The primary output consists of paycheques.

QUESTION 7
The essential elements of a Decision Support System (DSS) include a collection of models used to support a decision maker or user (_____), a collection of facts and information to assist in decision making (_ _____), and systems and procedures (_____) that help decision makers and other users interact wi th the DSS.

A. model base; database; dialogue manager
B. database; model base; dialogue manager
C. dialogue manager; model base; user interface
D. user interface; database; model base

Answer: A
Section: (none)

Explanation/Reference:
pg

The essential elements of a Decision Support System (DSS) include a collection of models used to support a decision maker or user (model base), a collection of facts and information to assist in decision making (database), and systems and procedures (dialogue manager or user interface) that help decision makers and other users interact with the DSS.

QUESTION 8
____ processing involves computers understanding and acting on verbal or written commands in English, Spanish, or other human languages.

A. System
B. Specialized
C. Natural language
D. Database

Answer: C
Section: (none)

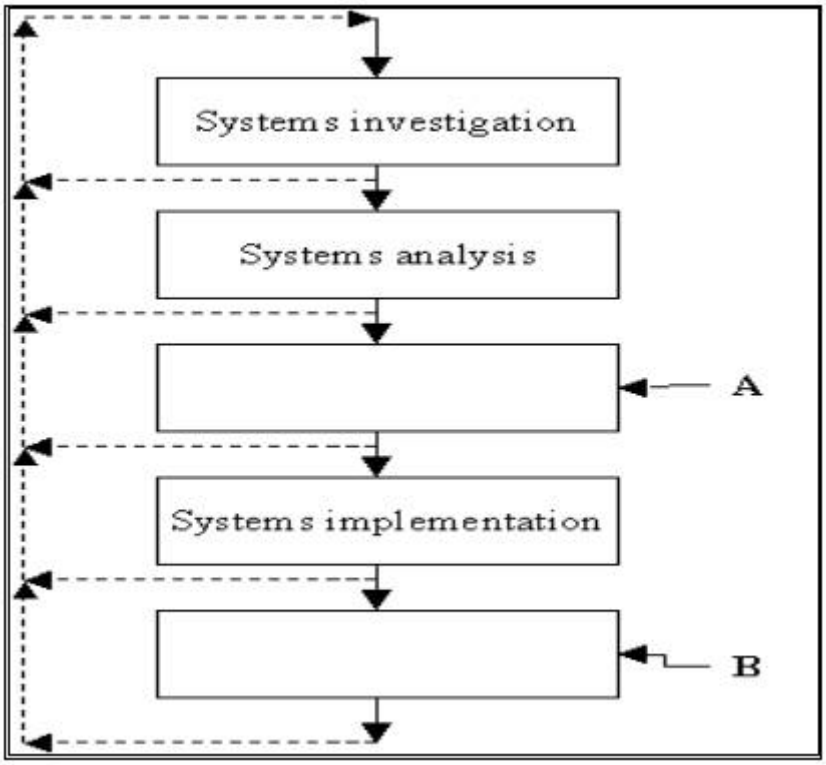
Explanation/Reference:
pg

Natural language processing involves computers understanding and acting on verbal or written commands in English, Spanish or other human languages.

A database is an organized collection of facts and information, typically consisting of two or more related data files. An organization's database can contain information on customers, employees, inventory, competitors' sales, online purchases and much more.

QUESTION 9
Question 9

In systems development, what do boxes 'A' and 'B' respectively represent-



A. Systems design; Systems review
B. Systems requirements; Systems testing
C. Systems design; Systems maintenance and review
D. Systems requirements; Systems maintenance

Answer: C

Section: (none)

Explanation/Reference:
pg

Systems development is the activity of creating or modifying existing business systems.

The five steps of systems development are:

- **Systems Investigation** - Understand the problem to be solved.
- **Systems Analysis** - Define problems and opportunities of the existing system.
- **Systems Design** (A) - Determining how the new system will work to meet the business needs defined during systems analysis..
- **Systems Implementation** – Creating or acquiring the various system components defined in the design phase, assembling them and putting the new system into operation.
- **Systems Maintenance and Review** (B) - Check and modify the system to keep up with changing business needs.

QUESTION 10
____ programs help a company manage all aspects of customer encounters, including marketing and adver tising, sales, customer service after the sale, and programs to retain loyal customers.

A. Customer Relationship Management (CRM)
B. Technology diffusion
C. Technology infusion
D. Supply Chain Management (SCM)

Answer: A
Section: (none)

Explanation/Reference:
pg

Supply Chain Management (SCM) and Customer Relationship Management (CRM) are two key parts of managing the value chain. SCM helps determine what supplies are required for the value chain, what quantities are needed to meet customer demand, how the supplies should be processed (manufactured) into finished goods and services, and how the shipment of supplies and products to customers should be scheduled, monitored, and controlled.

CRM programs help a company manage all aspects of customer encounters, including marketing and advertising, sales, customer service after the sale and help retain loyal customers.
Technology diffusion is a measure of how widely technology is spread throughout an organization.

Technology infusion, on the other hand, is the extent to which technology permeates an area or department.

QUESTION 11
Disruptive change often enhances an organization’s performance.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg

Disruptive change often harms an organization's performance or even puts it out of business.

QUESTION 12
A number of strategies to attain competitive advantage have been proposed. One of these is ____.

A. differentiation
B. threat of new entrants
C. eliminating products and services
D. rightsizing

Answer: A
Section: (none)

Explanation/Reference:
pg

Porter and others have proposed a number of strategies to attain competitive advantage including cost leadership, differentiation, niche strategy, altering the industry structure, creating new products and services and improving existing product lines and services.

QUESTION 13
Which of the following are examples of a strategic alliance-

a.
Apple computer introduces an easy to use iMac computer that can be used to create and edit home movies.

b. MacDonalds offers new coffee flavours at premium prices.
c. Cosmetic companies add sunscreen to their product lines.

A. only a and b
B. only b and c
C. a, b and c
D. neither a, b nor c

Answer: D
Section: (none)

Explanation/Reference:
pg

A strategic alliance is an agreement between two or more companies that involves the joint production and distribution of goods and services.

Neither a, b nor c are examples of companies working jointly to produce and distribute goods and services.

QUESTION 14
Market share is the percentage of profit that a product or service has in relation to the total market.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg

Market share is the percentage of sales that a product or service has in relation to the total market.

QUESTION 15
Red Turner was asked by his boss to determine all costs for owning a microcomputer. He probably wants to know the ____.

A. purchase price
B. market share
C. gross cost
D. Total Cost of Ownership (TCO)

Answer: D
Section: (none)

Explanation/Reference:
pg

Total Cost of Ownership (TCO) is the approach that breaks total costs into such areas as the cost to acquire the technology, technical support, administrative costs, end-user operations, retooling and training costs.
Refer to question 29 for the definition of market share.

QUESTION 16
The operations component of a typical IS department focuses more on the_____of informatio n systems rather than their effectiveness.

A. management reporting
B. strategic aspects
C. user training
D. efficiency

Answer: D
Section: (none)

Explanation/Reference:
pg

People in the operations component of a typical IS department work with nformation systems in corporate or business unit computer facilities. They tend to focus more on the efficiency of IS functions rather than their effectiveness.

QUESTION 17
Systems analysts and programmers often work in the ____ area of IS departments.

A. systems development
B. database management

C. network management
D. operations

Answer: A
Section: (none)

Explanation/Reference:
pg

The systems development component of a typical IS department focuses on specific development projects and ongoing maintenance and review. Systems analysts and programmers address these concerns to achieve and maintain IS effectiveness.

QUESTION 18
Laws restricting how data enters or exits a country are often called transatlantic data-flow laws.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg

Laws restricting how data enters or exits a country are often called 'trans-border data-flow laws'.

QUESTION 19
The ____ performs mathematical calculations and makes logical comparisons.

A. memory
B. Arithmetic/Logic Unit (ALU)
C. control unit
D. keyboard

Answer: B
Section: (none)

Explanation/Reference:
pg

Arithmetic Logic Unit (ALU) is the part of the Central Processing Unit (CPU) that performs mathematical calculations and makes logical comparisons.

Located physically close to the CPU (to decrease access time), memory provides the CPU with a working storage area for program instructions and data. The chief feature of memory is that it rapidly provides the data and instructions to the CPU.

The control unit sequentially accesses program instructions, decodes them, and coordinates the flow of data in and out of the ALU, registers, primary and secondary storage, and various output devices.

A keyboard and a computer mouse are the most common devices used for entry and input of data such as characters, text, and basic commands. Some

companies are developing keyboards that are more comfortable, more easily adjusted, and faster to use than standard keyboards. These ergonomic keyboards, such as the split keyboard by Microsoft and others, are designed to avoid wrist and hand injuries caused by hours of typing. Other keyboards include touchpads that let you enter sketches on the touchpad and text using the keys. Another innovation is the wireless mouse and keyboard, which keep a physical desktop free from clutter.

QUESTION 20
The series of electronic pulses created by the Central Processing Unit (CPU) at a predetermined rate is call ed the _____ and this is measured in

A. processor speed; bytes (Bs)
B. ALU cycle speed; gigahertz (GHz)
C. clock speed; megahertz (MHz)
D. cycle speed; Gigabytes (GBs)

Answer: C
Section: (none)

Explanation/Reference:
pg

Clock speed is a series of electronic pulses produced at a predetermined rate that affects machine cycle time and it is measured in megahertz (MHz).

QUESTION 21
Which one of the following ranges from the LEAST to the MOST number of bytes-

A. gigabyte (GB); megabyte (MB); terabyte (TB)
B. kilobyte (KB); MB; GB
C. MB; TB; GB
D. KB; GB; MB

Answer: B
Section: (none)

Explanation/Reference:
pg

Chronologically bytes range from: Byte, Kilobytes, Megabyte (MB), Gigabytes (GB).

QUESTION 22
____ combines two or more independent processors into a single computer to share the workload and boos t processing capacity.

A. An optical disc
B. A Storage Area Network (SAN)
C. Parallel computing
D. A multicore microprocessor

Answer: D
Section: (none)

Explanation/Reference:
pg

A muticore processor combines two or more independent processors into a single computer so that they can share the workload and boost processing capacity.

A Storage Area Network (SAN) is a special-purpose, high-speed network that provides direct connections between data-storage devices and computers across the enterprise.

Parallel computing is the simultaneous execution of the same task on multiple processors to obtain results faster.

An optical disc is a rigid disc of plastic onto which data is recorded by special lasers that physically burn pits in the disc.

QUESTION 23
What are the ADVANTAGES of secondary storage compared to memory-

A. Greater speed
B. Greater capacity
C. Nonvolatility
D. Greater economy

Answer: BCD
Section: (none)

Explanation/Reference:
pg

Secondary Storage offers
nonvolatility (c),
greater capacity (b),
and greater economy (d).

QUESTION 24
When trying to retrieve a specific record in a sequentially organized file, the computer

A. can retrieve the desired record immediately, without processing any other record
B. must retrieve all the records to reach the desired record
C. must read and discard all the data up to the desired record

Answer: C
Section: (none)

Explanation/Reference:
pg

Sequential access is a retrieval method in which data must be accessed in the order in which it is stored, in other words, if you want to retrieve information on part number 125, you must read and discard all the data r elating to parts 001 through 124.

QUESTION 25
A Compact Disc Read-Only Memory (CD-ROM) is a common form of _____.

A. sequential storage device
B. optical disk
C. Redundant Array of Independent/Inexpensive Disks (RAID)
D. Digital Video Disk (DVD)-technology

Answer: B
Section: (none)

Explanation/Reference:
pg

Compact Disk-Read Only Memory (CD-ROM) is a common form of optical disk on which data, once it has been recorded, cannot be modified.

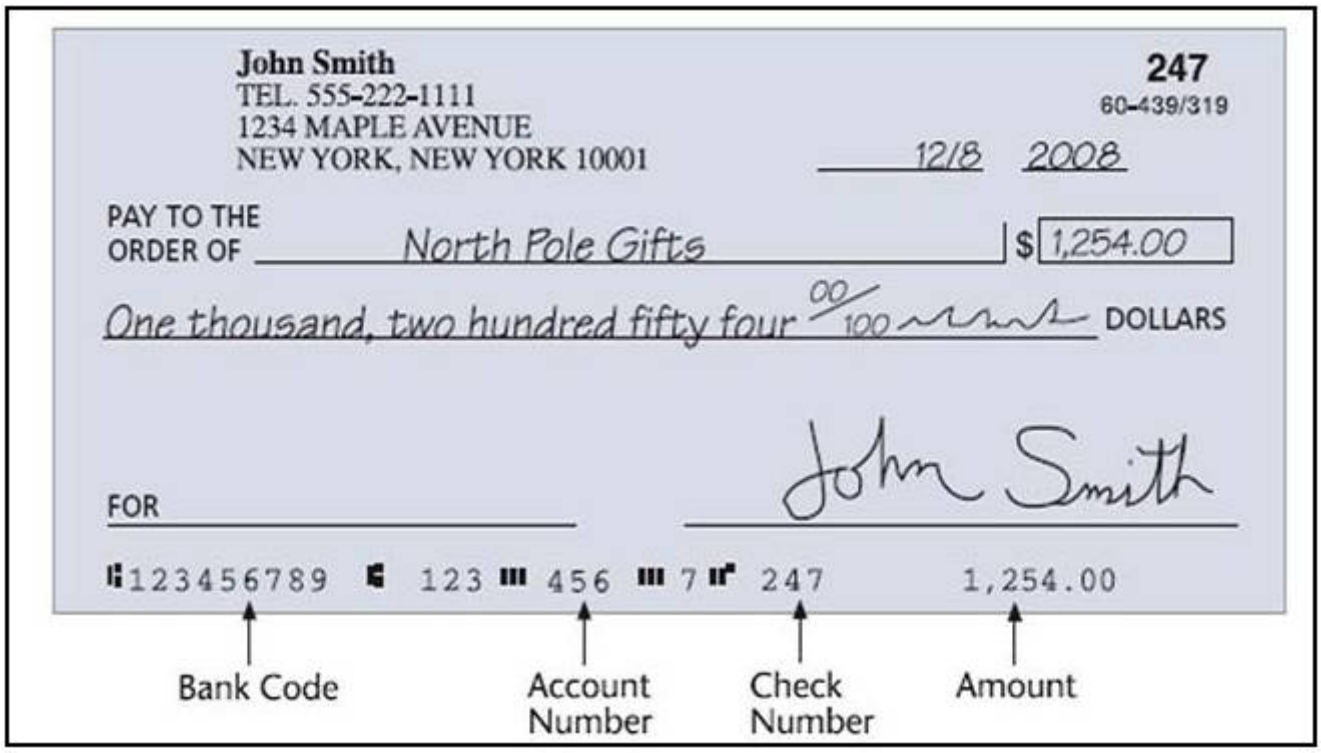
A Redundant Array of Independent/Inexpensive Disks (RAID) is a method of storing data that generates extra bits of data from existing data, allowing the system to create a 'reconstruction map' so that if a hard drive fails, it can rebuild lost data.

A Digital Versatile Disk (DVD) looks like a CD but can store about 135 minutes of digital video or several gigabytes of data.

Optical disk is a rigid disk of plastic onto which data is recorded by special lasers that physically burn pits in the disk.

QUESTION 26
Question 26

Which input device is depicted in the following diagram-



A. Magnetic Ink Character Recognition (MICR)
B. magnetic stripe card
C. Radio-Frequency Identification (RFID) technology
D. Optical Character Recognition (OCR)

Answer: A
Section: (none)

Explanation/Reference:
pg

Magnetic Ink Character Recognition (MICR) allows data to be placed on the bottom of a check or other form using a special magnetic ink.

Radio-Frequency Identification (RFID) technology employs a microchip with an antenna that broadcasts its unique identifier and location to receivers. One popular application of RFID is to place a microchip on retail items and install in-store readers that track the inventory on the shelves to determine when shelves should be restocked.

Most Optical Character Recognition (OCR) devices use reflected light to recognize various characters.

QUESTION 27
____ technology is based on research by Eastman Kodak Company and is appearing on the market in small electronic devices.

A. Cathode Ray Tube (CRT)
B. Thin-film transistor Liquid Crystal Displays (LCDs)
C. Digital Video Interface (DVI)
D. Organic Light-Emitting Diode (OLED)

Answer: D
Section: (none)

Explanation/Reference:
pg

Organic Light-Emitting Diode (OLED) technology is based on research by Eastman Kodak Company and is appearing on the market in small electronic devices.

The display monitor is a device similar to a TV screen that displays output from the computer. Because some monitors use a cathode-ray tube to display images, they are sometimes called cathode ray tube (CRTs).

Liquid Crystal Displays (LCDs) are flat displays that use liquid crystals – organic, oil-like material placed between two polarizers – to form characters and graphic images on a backlit screen.

Digital Video Interface (DVI) is designed to maximize the visual quality of digital display devices such as flat-panel LCD computer displays.

QUESTION 28
Acetate blueprints and schematics are often generated on a _____.

A. plotter
B. scanner
C. laser printer
D. inkjet printer

Answer: A
Section: (none)

Explanation/Reference:
pg

Plotters are a type of hard copy output devices used for general design work. It is used to generate paper or acetate blueprints and schematics.

You can input image and character data using a scanning device. A bar-code scanner uses a laser scanner to read a bar-coded label. It is widely used in grocery shop checkouts and in warehouse inventory control.

One of the most useful and popular forms of output is called hard copy, which is simply paper output from a printer. The two main types of printers are laser printers and inkjet printers, and they are available with different speeds, features and capabilities.

QUESTION 29
Servers offer great scalability, the ability to increase the processing capability of a computer system so that i t can handle more users, more data or more transactions in a given period. Scalability is increased by addin g more, or more powerful, processors. Scaling _____adds more powerful processors and scaling___ _____adds many more equal (or even less powerful) processors to increase the total data-processing capacity.

A. up; down
B. in; out
C. forward; backward
D. up; out

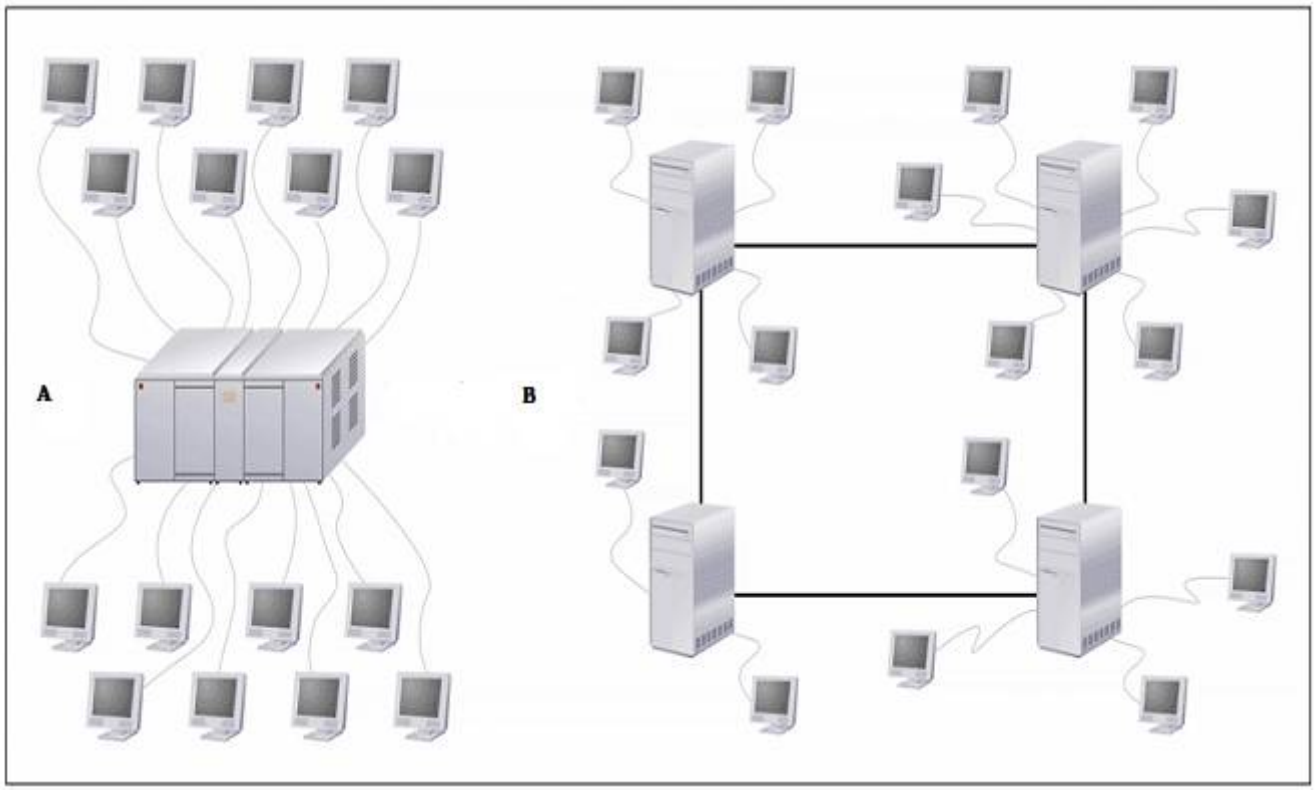
Answer: D
Section: (none)

Explanation/Reference:
pg

Scaling up adds more powerful processors and scaling out adds many mor equal processors to increase the total data processing capacity.

QUESTION 30
Question 30

Which combination of Operating Systems (OSs) is depicted in 'A' and 'B' respectively-



A. Single computer with a single user; single computer with multiple users
B. Single computer with multiple users; multiple computers
C. Server farm; single computer with multiple users
D. Multiple computers; networked computers

Answer: B
Section: (none)

Explanation/Reference:
pg

Single computer with multiple users (Figure A): This system is typical of larger, mainframe computers that can accommodate hundreds or thousands of people, all using the computer at the same time.

Multiple computers (Figure B) are a network of computers attached to a large computer network with hundreds of computers attached around the world.

Single computer with a single user: This system is commonly used in a personal computer or a handheld computer that allows one user at a time.

QUESTION 31
When using virtual memory

A. more programs can be processed in less time
B. the physical size of memory increases
C. the functional memory capacity of RAM is supplemented

Answer: AC
Section: (none)

Explanation/Reference:
pg

Virtual memory supplements functional memory capacity of RAM (c) and increase the number of jobs that can run at the same time (a).

QUESTION 32
____ is a network OS sold by Novell that can support users on Windows, Macintosh and UNIX platforms.

A. Red Hat Linux
B. NetWare
C. MPE/iX
D. z/OS

Answer: B
Section: (none)

Explanation/Reference:
pg

NetWare is a network OS sold by Novell that can support users on Windows, Macintosh, and UNIX platforms.

Red Hat Software offers a Linux network OS that taps into the talents of tens of thousands of volunteer programmers who generate a steady stream of improvements for the Linux OS. The Red Hat Linux network OS is very efficient at serving web pages and can manage a cluster of up to eight servers.

Multiprogramming Executive with integrated POSIX (MPE/iX) is the Internet-enabled OS for the Hewlett-Packard e3000 family of computers. MPE/iX is a robust OS designed to handle a variety of business tasks, including online transaction processing and Web applications.

The z/OS is IBM's first 64-bit enterprise OS. It supports IBM's z900 and z800 lines of mainframes that can come with up to sixteen 64-bit processors. (The z stands for zero downtime).

QUESTION 33
Which of the following could be classified as enterprise computer OSs-

A. Solaris
B. Windows Embedded
C. z/OS
D. MPE/iX

Answer: CD
Section: (none)

Explanation/Reference:
pg

z/Os and MPE/iX are classified as enterprise computer operating systems.

Solaris is a workgroup operating system.

Windows Embedded is a mobile operating system.

QUESTION 34
From the list below, which are KEY QUESTIONS for selecting off-the-shelf software-

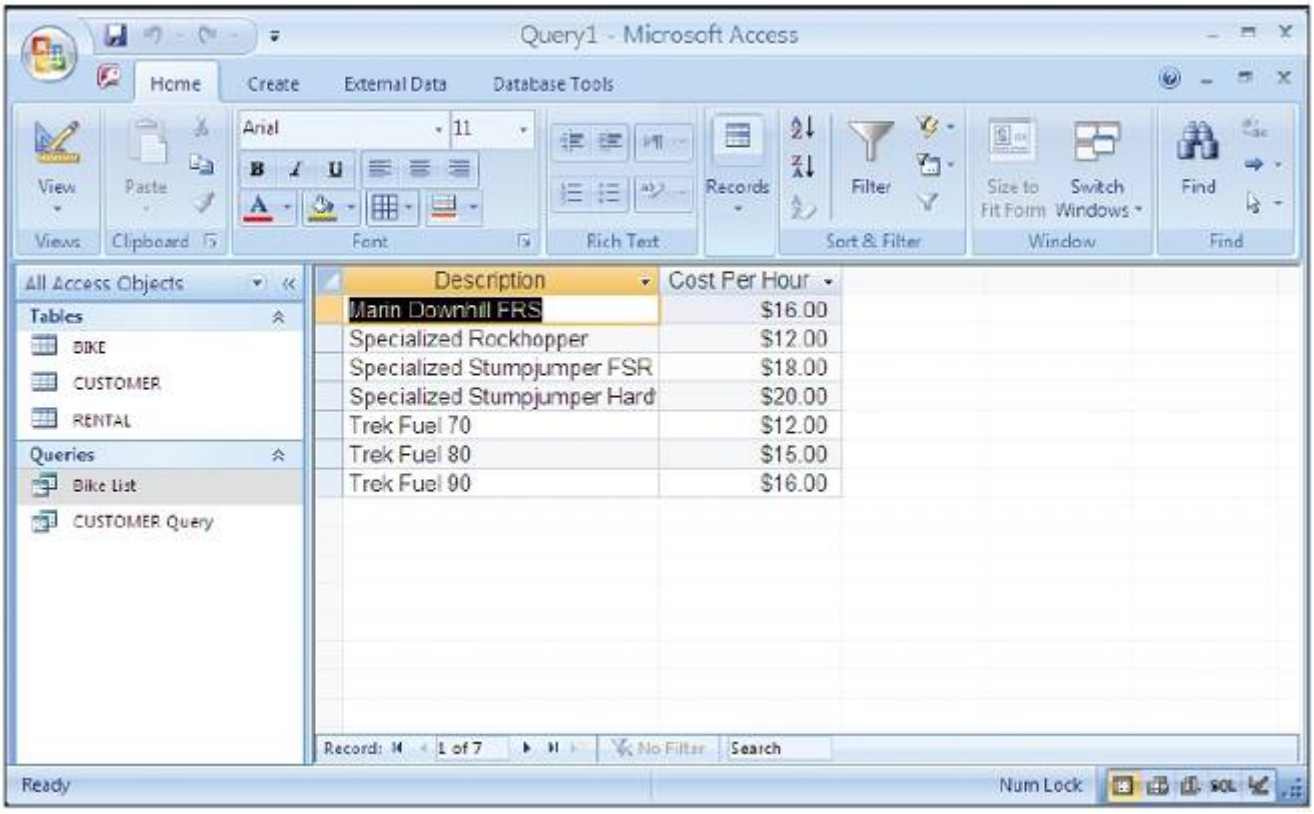
A. Will the software run on the OS and hardware you have selected-
B. Does the software meet the essential business requirements that have been defined-
C. Is the software manufacturer financially solvent and reliable-
D. Does the total cost of purchasing,
installing, and maintaining the software compare favorably to the expected business benefits-

Answer: ABCD
Section: (none)

Explanation/Reference:
pg

The key questions you should ask when selecting off-the-shelf-software include:
a. Will the software run on the OS and hardware you have selected (a)-
b. Does the software meet the essential business requirements that have been identified (b)-
c. Is the software manufacturer financially solvent and reliable (c)-
d. Does the total cost of purchasing, installing, and maintaining the software compare favourably to the expected benefits (d)-

QUESTION 35
The following diagram is an example of a_____ personal application software.



A. word processing
B. database
C. desktop publishing
D. spreadsheet

Answer: B
Section: (none)

Explanation/Reference:
pg

Database applications are ideal for storing, manipulating, and retrieving data, and are central to most information systems. These applications are particularly useful when you need to manipulate a large amount of data and produce reports and documents. MS Access is a database and it is used to store , manipulate and retrieve data

Word processing applications are installed on most Personal Computers (PCs) today. These applications come with a vast array of features, including those for checking spelling, creating tables, inserting formulas, creating graphics, and much more.

Desktop publishing entails the usage of personal computers and high-resolution printers to create high-quality printed output, including text and graphics; various styles of pages can be laid out; art and text files from other programs can also be integrated into “published” pages.

Spreadsheets are powerful tools for individuals and organizations. Features of spreadsheets include graphics, limited database capabilities, statistical analysis, built-in business functions, and much more.

QUESTION 36
Question 36

The following diagram is a typical example of a .

A. software suite
B. graphics program
C. word processor
D. web development tool

Answer: A
Section: (none)

Explanation/Reference:
pg

A software suite is a collection of single application programs packaged in a bundle. As such, software suites represent an economical way for small businesses to get powerful applications. Software suites can include word processors, spreadsheets, database management systems, graphics programs, communications tools, web development tools and more.

QUESTION 37
The term ____ is used to describe a set of rules associated with a programming language.

A. attribute
B. record
C. bug
D. syntax

Answer: D
Section: (none)

Explanation/Reference:
pg

Each programming language uses symbols that have special meaning. Each language also has its own set of rules, called the syntax of the language. The language syntax dictates how the symbols should be combined into statements capable of conveying meaningful instructions to the CPU.

A software bug is a defect in a computer program that keeps it from performing as it is designed to perform.

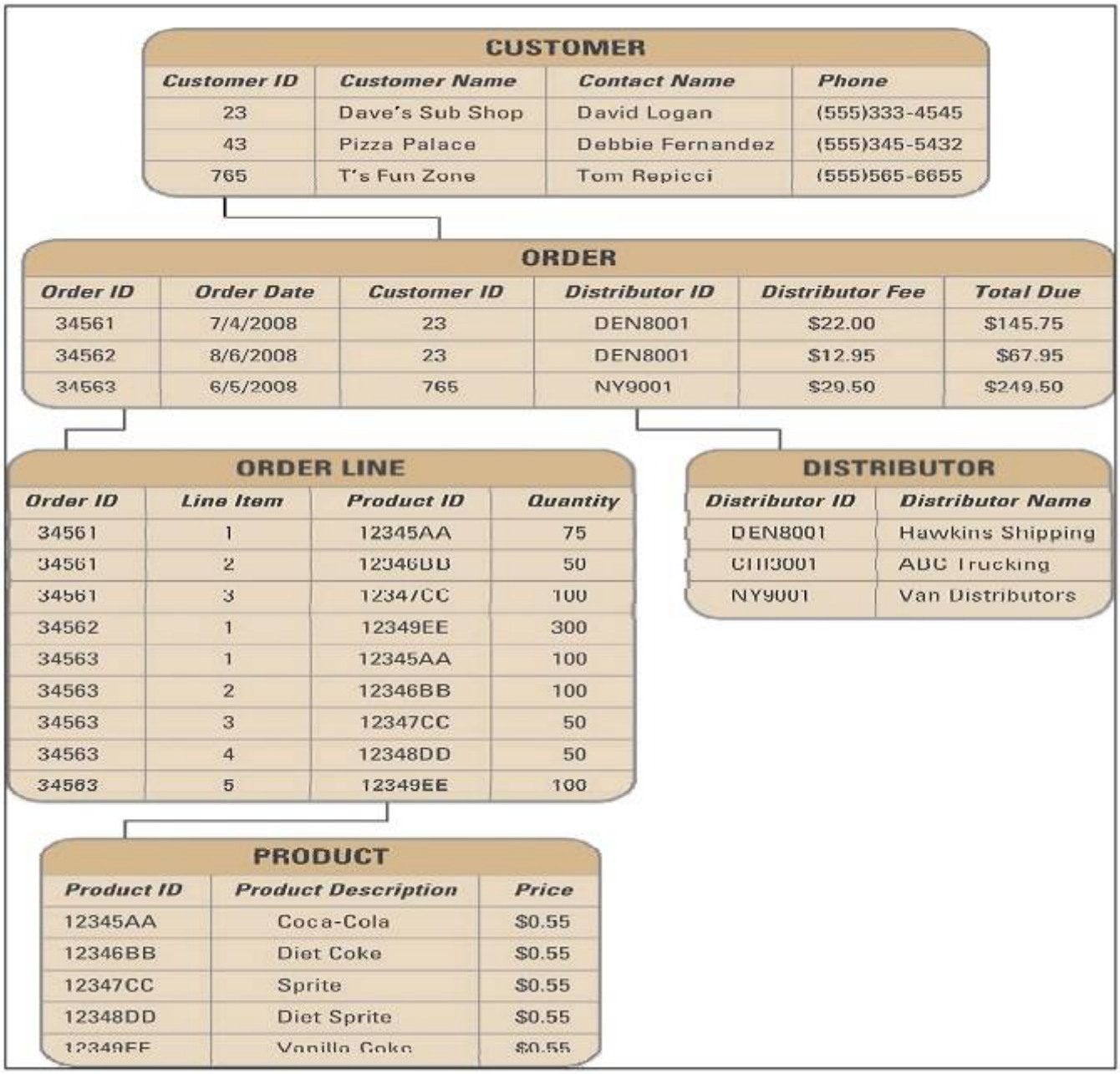
A record is a collection of related data field.

A relational database is made up of a number of tables. In loose terms, each table stores the data about someone or something of interest to the firm. This someone or something is known as an entity. The rows in a table collect together all the data about one specific entity. For example, in the customer table, each row stores all the data about one particular customer – Jane Smith for instance, or Desmond Paton. These rows are known as records. The columns in a table are the specific items of data that get stored, for example, first name, and surname or telephone number. These columns are known as fields or attributes.

QUESTION 38
Press Exhibit button to see table that represents a relational database. This Questions is based on the following database.

If Customer ID is a unique number, then the area in the table above represented by Customer ID is a

Exhibit:



CUSTOMER

Customer ID	Customer Name	Contact Name	Phone
23	Dave's Sub Shop	David Logan	(555)333-4545
43	Pizza Palace	Debbie Fernandez	(555)345-5432
765	T's Fun Zone	Tom Repicci	(555)565-6655

ORDER

Order ID	Order Date	Customer ID	Distributor ID	Distributor Fee	Total Due
34561	7/4/2008	23	DEN8001	$22.00	$145.75
34562	8/6/2008	23	DEN8001	$12.95	$67.95
34563	6/5/2008	765	NY9001	$29.50	$249.50

ORDER LINE

Order ID	Line Item	Product ID	Quantity
34561	1	12345AA	75
34561	2	12346BB	50
34561	3	12347CC	100
34562	1	12349EE	300
34563	1	12345AA	100
34563	2	12346BB	100
34563	3	12347CC	50
34563	4	12348DD	50
34563	5	12349EE	100

DISTRIBUTOR

Distributor ID	Distributor Name
DEN8001	Hawkins Shipping
CHI3001	ABC Trucking
NY9001	Van Distributors

PRODUCT

Product ID	Product Description	Price
12345AA	Coca-Cola	$0.55
12346BB	Diet Coke	$0.55
12347CC	Sprite	$0.55
12348DD	Diet Sprite	$0.55
12349EE	Vanilla Coke	$0.55

A. secondary key
B. primary key
C. data item
D. a record

Answer: B
Section: (none)

Explanation/Reference:
pg

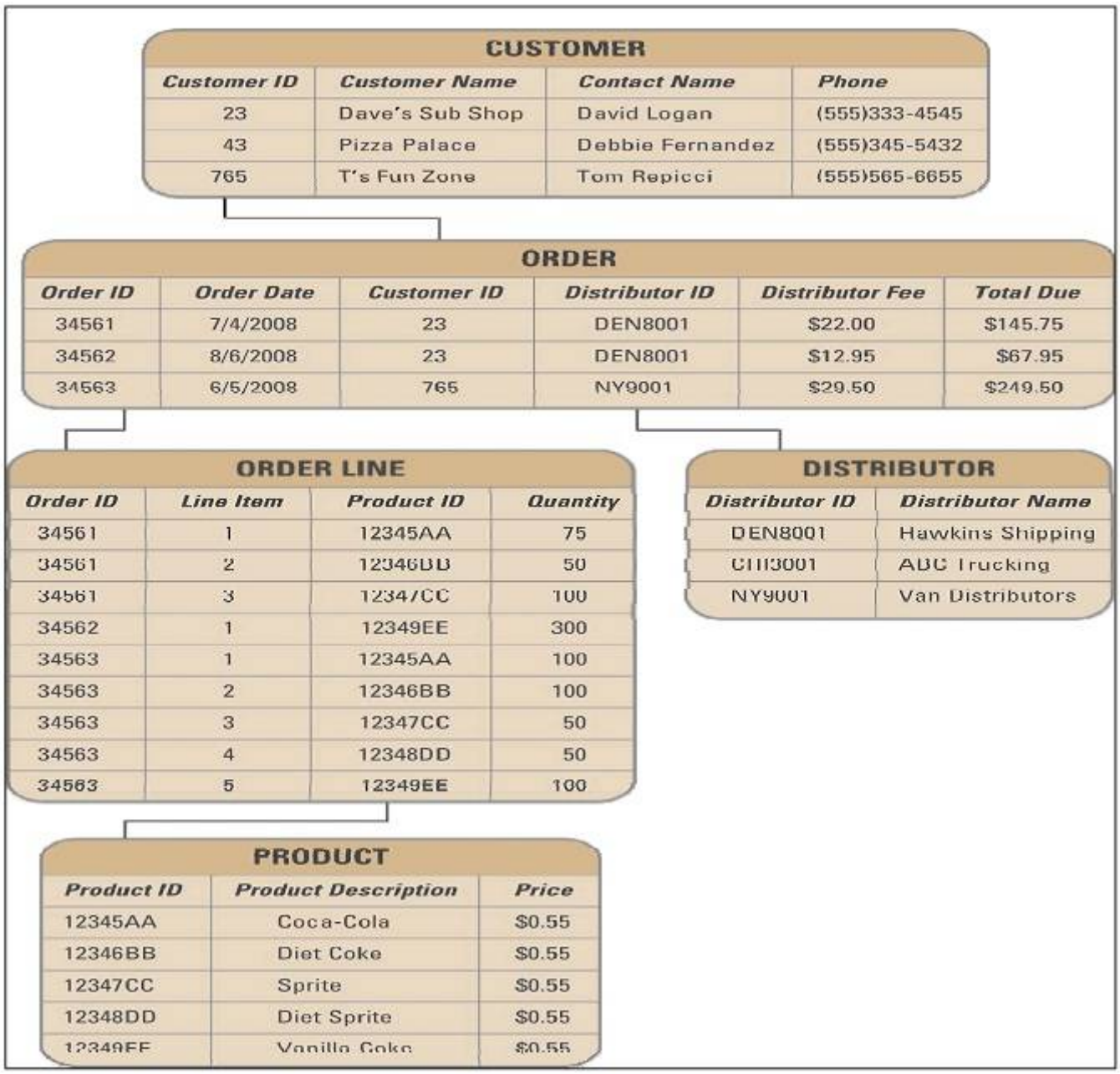
A primary key is a field in a table that is unique – each record in that table has a different value in the primary key field. The primary key is used to uniquely identify each record, and to create relationships between tables

A record is a collection of related data field.

QUESTION 39
Press Exhibit button to see table that represents a relational database. This Questions is based on the following database.

The Customer table, Order table, Order Line Table, Distributor table and Line Table represent five

Exhibit:



CUSTOMER

Customer ID	Customer Name	Contact Name	Phone
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43	Pizza Palace	Debbie Fernandez	(555)345-5432
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ORDER

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34561	3	12347CC	100
34562	1	12349EE	300
34563	1	12345AA	100
34563	2	12346BB	100
34563	3	12347CC	50
34563	4	12348DD	50
34563	5	12349EE	100

DISTRIBUTOR

Distributor ID	Distributor Name
DEN8001	Hawkins Shipping
CHI3001	ABC Trucking
NY9001	Van Distributors

PRODUCT

Product ID	Product Description	Price
12345AA	Coca-Cola	$0.55
12346BB	Diet Coke	$0.55
12347CC	Sprite	$0.55
12348DD	Diet Sprite	$0.55
12349EE	Vanilla Coke	$0.55

A. data items
B. primary keys
C. entities
D. attributes

Answer: C
Section: (none)

Explanation/Reference:
pg

An entity is a person, place or thing about whom or about which an organization wants to store data.

A relational database is made up of a number of tables. In loose terms, each table stores the data about someone or something of interest to the firm. This someone or something is known as an entity. The rows in a table collect together all the data about one specific entity. For example, in the customer table, each row stores all the data about one particular customer – Jane Smith for instance, or Desmond Paton. These rows are known as records. The columns in a table are the specific items of data that get stored, for example, first name, and surname or telephone number. These columns are known as fields or **attributes**.

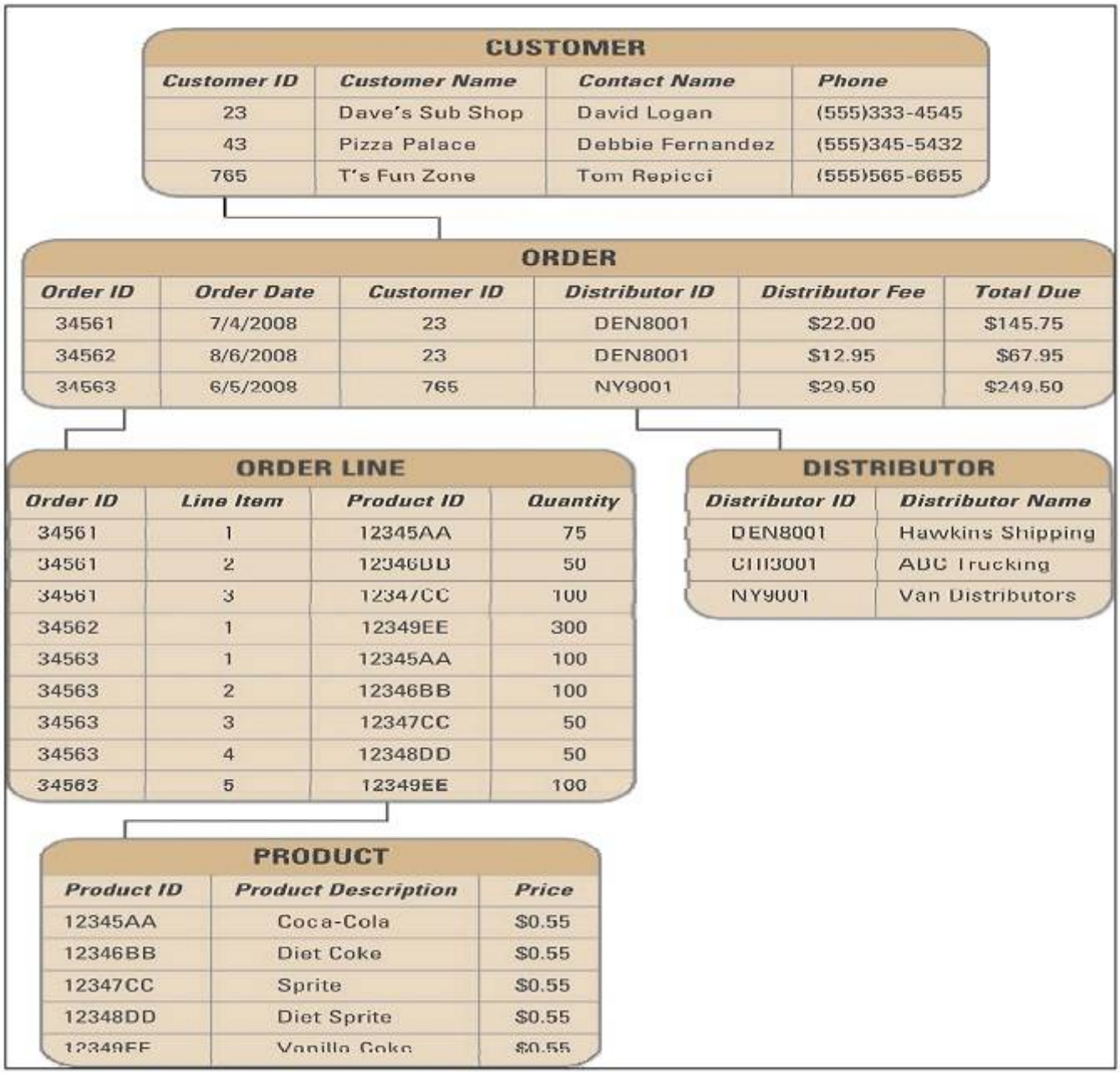
A primary key is a field in a table that is unique – each record in that table has a different value in the primary key field. The primary key is used to uniquely identify each record, and to create relationships between tables

QUESTION 40

Press Exhibit button to see table that represents a relational database. This Questions is based on the following database.

Study the Distributor table. The columns, Distributor ID and Distributor Name are

Exhibit:



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34563	3	12347CC	50
34563	4	12348DD	50
34563	5	12349EE	100

DISTRIBUTOR

Distributor ID	Distributor Name
DEN8001	Hawkins Shipping
CHI3001	ABC Trucking
NY9001	Van Distributors

PRODUCT

Product ID	Product Description	Price
12345AA	Coca-Cola	$0.55
12346BB	Diet Coke	$0.55
12347CC	Sprite	$0.55
12348DD	Diet Sprite	$0.55
12349EE	Vanilla Coke	$0.55

A. records
B. fields
C. entities
D. relationships

Answer: B
Section: (none)

Explanation/Reference:
pg

Field is a characteristic or attribute of an entity that is stored in the database. Fields include columns in the table.

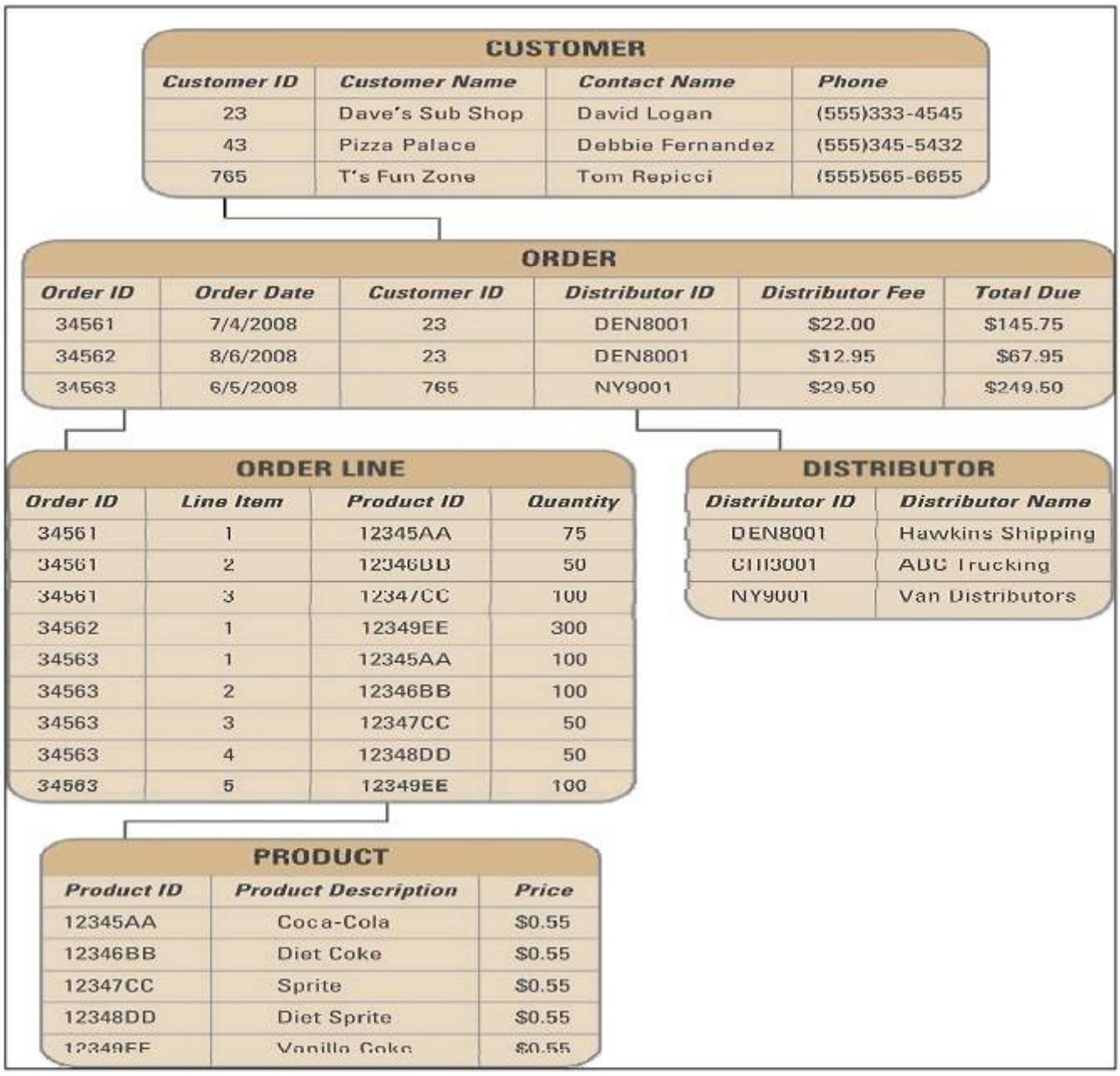
A record is a collection of related data field.

An entity is a person, place or thing about whom or about which an organization wants to store data.

QUESTION 41
Press Exhibit button to see table that represents a relational database. This Questions is based on the following database.

The Customer ID in the Order Table is a

Exhibit:



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34563	4	12348DD	50
34563	5	12349EE	100

DISTRIBUTOR

Distributor ID	Distributor Name
DEN8001	Hawkins Shipping
CHI3001	ABC Trucking
NY9001	Van Distributors

PRODUCT

Product ID	Product Description	Price
12345AA	Coca-Cola	$0.55
12346BB	Diet Coke	$0.55
12347CC	Sprite	$0.55
12348DD	Diet Sprite	$0.55
12349EE	Vanilla Coke	$0.55

A. foreign key
B. primary key
C. secondary key

D. linking key

Answer: A
Section: (none)

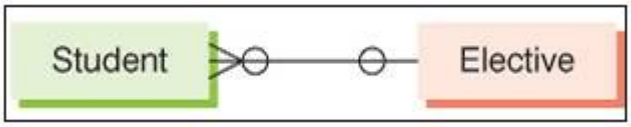
Explanation/Reference:
pg

Foreign key is when a primary key is posted into another table to create a relationship between the two. When the CustomerID is posted in the Order table.

A primary key is a field in a table that is unique – each record in that table has a different value in the primary key field. The primary key is used to uniquely identify each record, and to create relationships between tables

QUESTION 42
Question 42

Which binary relationship is depicted in the following diagram-



A. Many-to-many relationship.
B. One-to-many relationship, many side obligatory to one side.
C. One-to-one relationship, optional on one side.
D. One-to-many relationship, many side optional to one side.

Answer: D
Section: (none)

Explanation/Reference:
pg

One-to-many relationship, many sides optional to one side. For example a student might take one elective module each module is taken by many students.

QUESTION 43
Hallmark Cards wish to be the best manufacturers of greeting cards. They would use_____to gain information about their competitors and _____to protect their company strategy.

A. competitive intelligence, counterintelligence
B. counterintelligence, business intelligence
C. industrial espionage, counterintelligence
D. competitive intelligence, knowledge management

Answer: A
Section: (none)

Explanation/Reference:
pg

Competitive intelligence is a one branch of business intelligence limited to information about competitors and the way that knowledge affects strategy, tactics and operations.

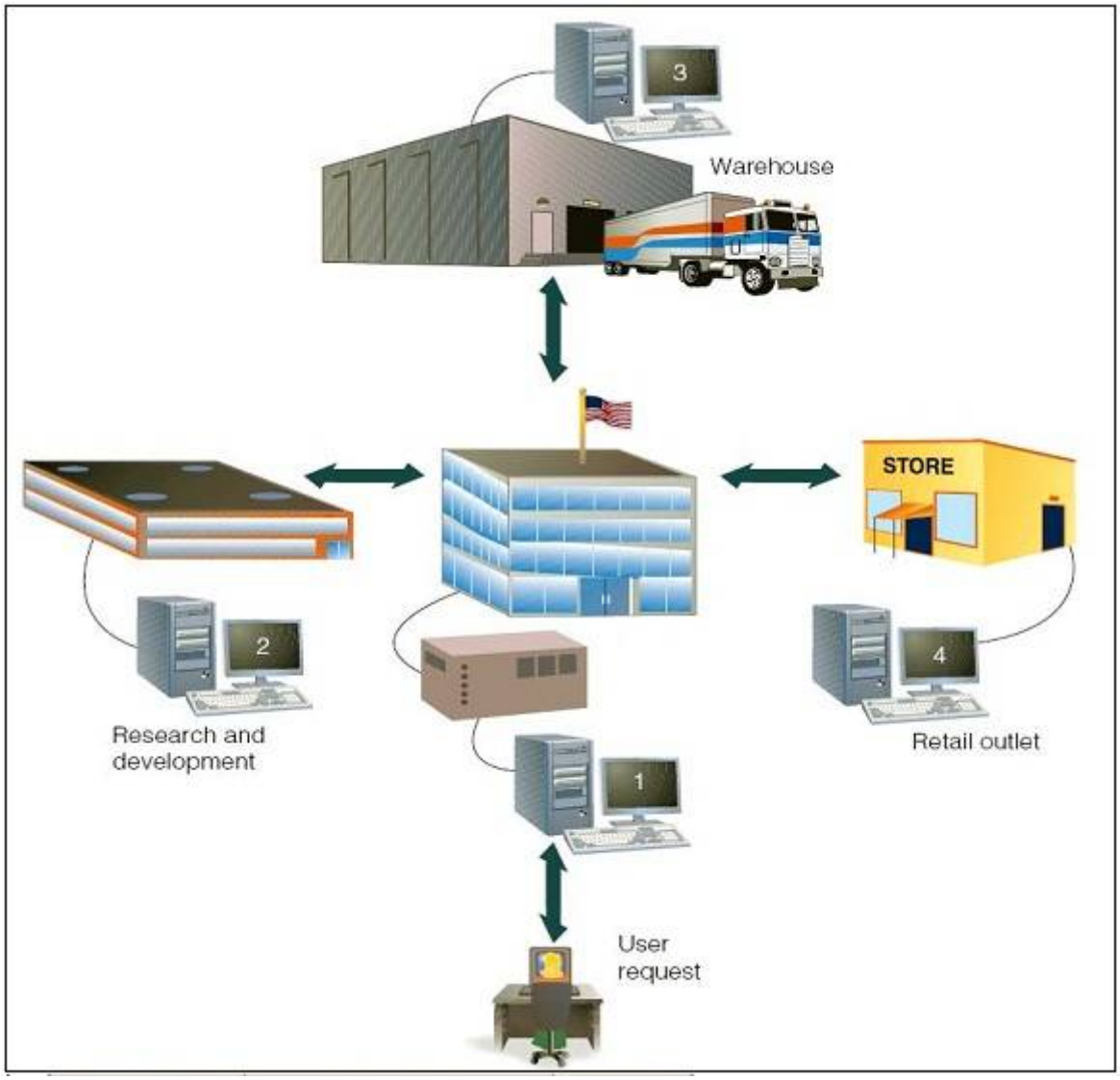
Counterintelligence is the steps an organization takes to protect information sought by hostile intelligence gatherers.

Business intelligence (BI) involves gathering enough of the right information in a timely manner and usable form and analyzing it so that it can be used to have a positive effect on business strategy, tactics, or operations.

QUESTION 44
Which statement(s) regarding distributed databases is (are) CORRECT-

Distributed databases

Exhibit:



A. allow for greater flexibility in how databases are organized and used
B. are databases in which the data is spread across several smaller databases connected via telecommunications devices
C. are represented in the following diagram (See Exhibit)
D. present challenges in maintaining data security, accuracy and timeliness

Answer: ABCD
Section: (none)

Explanation/Reference:
pg

A distributed database is a database in which data is spread across several smaller databases connected via telecommunications devices (b).

Distributed databases give organizations more flexibility in how databases are organized and used (a).

Distributed processing creates additional challenges in integrating different databases, maintaining security, accuracy, timeliness and conformance to standards.

QUESTION 45
An Object-
oriented Database Management System (OODBMS) enables an organization to add new data types such a s images, audio, unstructured text, spatial, or time series data to a database.

A. True
B. False

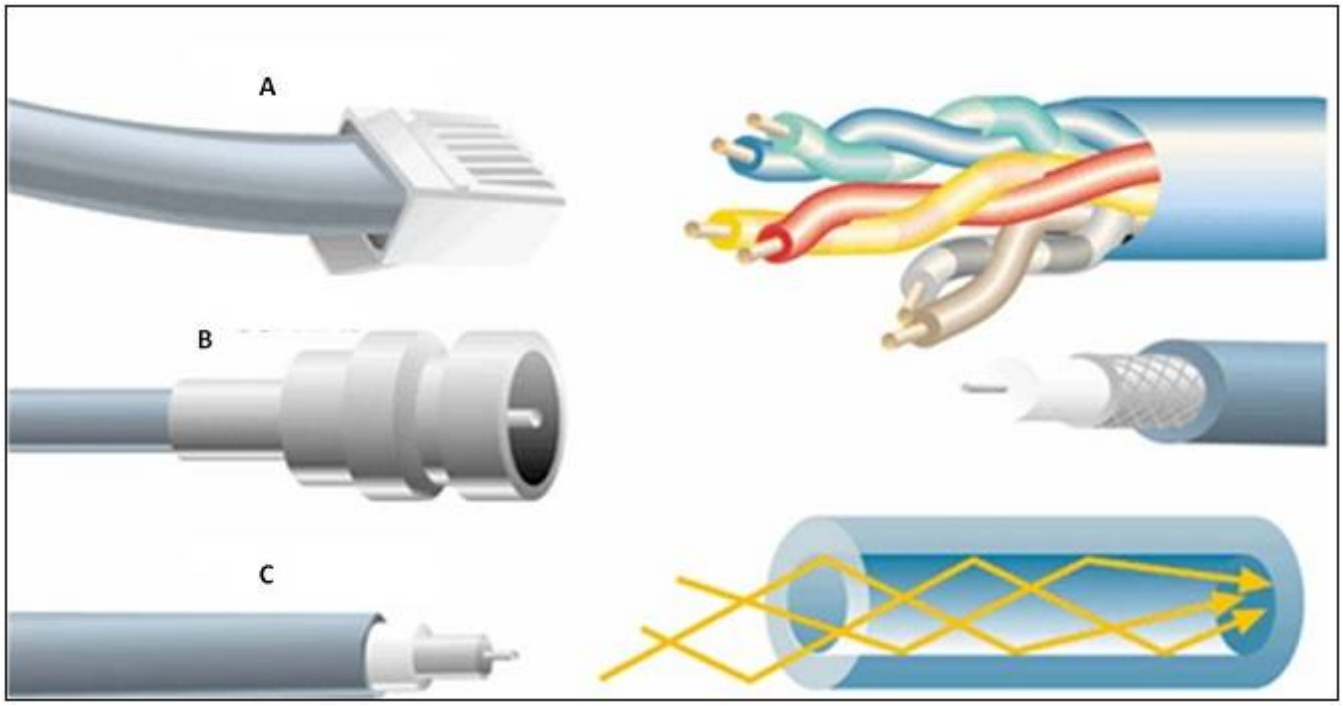
Answer: B
Section: (none)

Explanation/Reference:
pg

An object-oriented database uses an Object-Oriented Database Management System (OODBMS) to provide a user interface and connections to other programs.

An Object-Relational Database Management System (ORDBMS) provides a complete set of relational database capabilities plus the ability for third parties to add new data types and operations to the database. These new data types can be audio, images, unstructured text, spatial or time series data that require new indexing, optimization and retrieval features.

QUESTION 46
Identify the guided transmission media depicted by the letters ‘A’, ‘B’ and ‘C’ in the following diagram respect ively.



A. twisted-pair wire; coaxial cable; fibre-optic cable
B. fibre-optic cable; coaxial cable; twisted-pair cable
C. coaxial cable; twisted-pair cable; fibre-optic cable
D. fibre-optic cable; twisted-pair wire; coaxial cable

Answer: A
Section: (none)

Explanation/Reference:
pg

Twisted pair consists of twisted pairs of copper wire, shielded or unshielded(a).

Coaxial cable consists of inner conductor wire surrounded by insulation. (b)

The guided transmission media type depicted in diagram c is fibre-optic cable as it has many extremely thin strands of glass bound together in sheathing.

QUESTION 47
Which of the following transmission medium/media must have unobstructed line of sight between sender and
receiver-

a. microwave
b. cellular
c. infrared

A. only a
B. a and b
C. a and c
D. neither a, b nor c

Answer: C
Section: (none)

Explanation/Reference:
pg

The medium which should have unobstructed line of sight are
microwave (a)
and infrared (c).

QUESTION 48
Many utilities, cities and organizations are experimenting with _____ to provide network connections o ver standard high-voltage power lines.

A. fiber-optic cable
B. coaxial cable
C. microwave transmission
D. Broadband over Power Lines (BPL)

Answer: D
Section: (none)

Explanation/Reference:
pg

Many utilities, cities and organizations are experimenting with Broadband over Power Lines (BPL) to provide network connections over standard high-voltage power lines.

Coaxial cable consists of inner conductor wire surrounded by insulation.

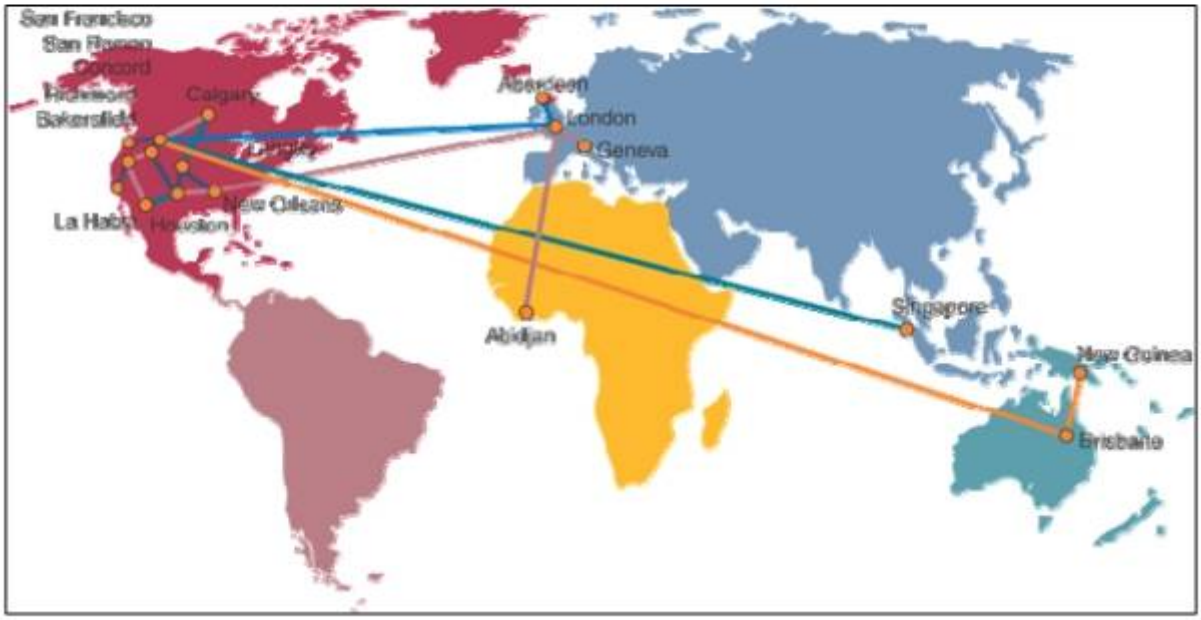
The guided transmission media type is fibre-optic cable
as it has many extremely thin strands of glass bound together in sheathing.

Microwave transmission is a high-frequency radio signal (300 MHz – 300 GHz) signal sent through atmosphere and space (often involves communication satellites).

QUESTION 49
Question 49

Identify the following network types.

DESCRIPTION
A network that connects computer systems and devices within a small area, such as an office, home, or several floors in a building is a _____.
A_____ is a wireless network that connects information technology devices within a range of 3 meters or so.
A _____ is a telecommunications network that connects users and their computers in a geographical area that spans a campus or city.



A. Local Area Network (LAN); Personal Area Network (PAN); Metropolitan Area Network (MAN); Wide Are a Network (WAN)
B. LAN; PAN; WAN; MAN
C. PAN; LAN; WAN; MAN
D. LAN; PAN; MAN; international network

Answer: A
Section: (none)

Explanation/Reference:
pg

A network that connects computer systems and devices within a small area, such as an office, home or several floors in a building is a Local Area Network (LAN).

A Personal Area Network (PAN) is a wireless network that connects information technology devices within a range of three metres or so.

A Metropolitan Area Network (MAN) is a telecommunications network that connects users and their computers in a geographical area that spans a campus or city.

A Wide Area Network (WAN) is a telecommunications network that connects large geographic regions.

QUESTION 50
Study the following statements and identify the correct form of processing alternative respectively.

a. All processing occurs in a single location or facility.
b. Processing devices are placed at various remote locations.
c. Computers are placed at remote locations but connected to each other via telecommunications devices.

A. centralized; decentralized; distributed
B. decentralized; distributed; centralized
C. distribute; centralized; decentralized
D. centralized; distributed; decentralized

Answer: A
Section: (none)

Explanation/Reference:
pg

Centralized Processing is when all processing occurs in a single location or facility (a).

Decentralized processing is processing where devices are placed at various remote areas (b).

Distributed
processing is when computers are placed at remote locations but connected to each other via telecommuni cations (c).

QUESTION 51
Which one of the following statements regarding communication protocols is CORRECT-

A. Ultra Wideband (UWB) transmissions consist of a stream of pulses only picoseconds wide. These extre mely short impulses result in high frequencies spread over a wide band.
B. 4G provides for faster transmission speeds in the range of 2– 4 Mbps that will enable applications such as Voice over IP (VoIP), video telephony, mobile multimedia and interactive gaming.
C. 3G is expected to deliver more advanced versions of enhanced multimedia, smooth streaming video, universal access, portability across all types of devices and, hopefully, worldwide roaming capability.
D. WiMAX speeds are less than those of Wi-Fi.

Answer: A
Section: (none)

Explanation/Reference:
pg

Ultra Wideband (UWB) transmissions consist of a stream of pulses only picoseconds wide. Theses extremely short impulses result in high frequencies spread over a wide band.

3G provides for faster data transmission speeds in the range of 2-4 Mbps that will enable applications such as VoIP, video telephony, mobile multimedia and interactive gaming.

4G is expected to deliver more advanced versions of enhanced multimedia, smooth streaming video, universal access, and portability across all types of devices and hopefully worldwide roaming capability.

Currently, Wi-Fi speeds are less than half those of WiMAX and users must be within a few hundred metres of a hot spot.

QUESTION 52

Question 52

Certain hardware devices switch messages from one network to another at high speeds. Complete the follo wing
table by providing the correct term for each of these hardware devices.

A _____connects one LAN to another LAN that uses the same telecommunications protocol.
A _____uses the physical device address in each incoming message on the network to determine to which output port it should forward the message to reach another device on the same network.
A _____ is a network device that serves as an entrance to another network.

A. gateway; router; hub
B. bridge; switch; gateway
C. router; switch; multiplexer
D. front-end processor; gateway; bridge

Answer: B
Section: (none)

Explanation/Reference:
pg

A bridge is a telecommunication device that connects one LAN to another LAN that uses the same telecommunications protocol.

A switch is a telecommunication device that uses the physical device address in each incoming message on the network to determine to which output port it should forward the message to reach another device on the same network.

A gateway is a telecommunications device that serves as an entrance to another network.

QUESTION 53
Question 53

What does the letter 'A' in the Uniform Resource Locator (URL) in the following diagram depict-

Protocol	Web server	A	Location on server	Requested file
http://	www.	course.com/	cca/ch1/	index.html

A. Internet Service Provider (ISP) name
B. domain affiliation
C. domain name
D. web browser name

Answer: C

Section: (none)

Explanation/Reference:
pg

A domain name is used to identify internet host sites and they must have at least two parts, with each part separated by a dot or full stop.
Internet Service Provider is the company that provides the people with access to internet.

A web browser is the software that creates a unique, hypermedia-based menu on a computer screen, providing a graphical interface on the web. Web browsers enable net surfers to view more complex graphics and 3D models, as well as audio and video material, and to run small programs embedded in web pages called applets.

The following diagram lists some top-level domain affiliations:

Affiliation ID	Affiliation
com	Commercial organizations
edu	Educational sites (mostly based in the U.S.)
gov	Government sites (mostly based in the U.S.)
net	Networking organizations
org	Organizations

QUESTION 54
Study the following diagram. This company has software to scan incoming messages for possible junk or bulk e-mail called_____ and deletes it in a separate file.

A. spam
B. worms
C. spyware
D. viruses

Answer: A
Section: (none)

Explanation/Reference:

pg

Many companies have software scan incoming messages for possible junk or bulk e-mail, called spam, and delete it or place it in a separate file.

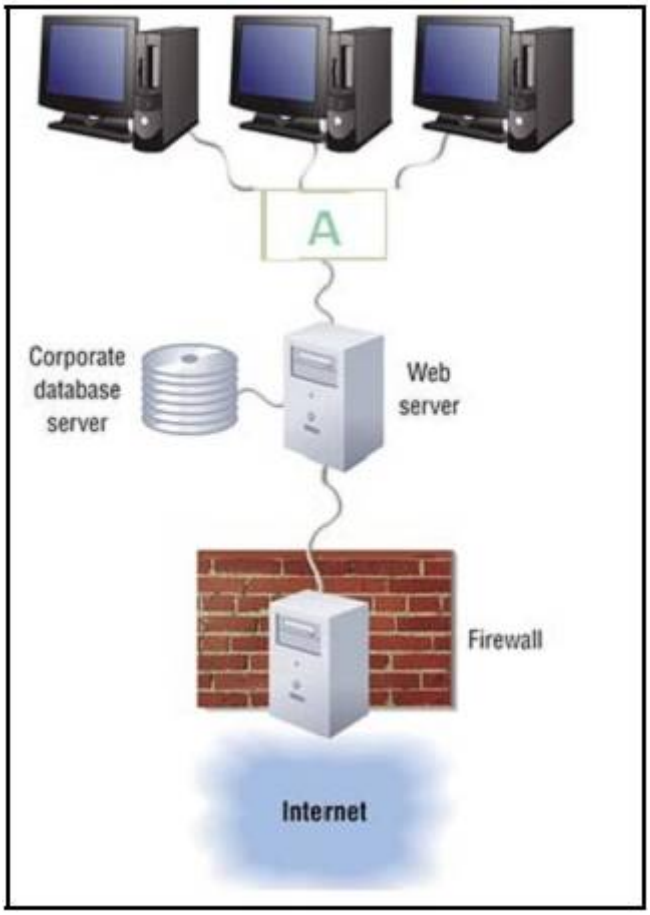
Worms are computer programs that replicate but, unlike viruses, do not infect other computer program files.

A virus is a computer program file capable of attaching to disks or other files and replicating itself repeatedly, typically without the user's knowledge or permission.

A spyware is a software which record all manner of personal information about users and forward it to the spyware owner, all without the user'

QUESTION 55
Question 55

In the following diagram, the Web server provides confidential data to LAN users, while keeping the data saf e from
those outside the organization through the use of a firewall. The letter 'A' denotes a (n) .



A. Virtual Private Network (VPN)
B. tunnelling
C. extranet
D. intranet

Answer: D
Section: (none)

Explanation/Reference:
pg

An Intranet is the internal network protected by the firewall which uses facilities like web server. It only consists of internal users and to access it you need password.

A Virtual Private Network (VPN) is a secure connection between two points on the Internet.

An extranet is when companies offer limited access to their intranet to selected customers and suppliers.

Tunneling is the process by which VPNs transfer information by encapsulating traffic in IP packets.

Exam C

QUESTION 1
Payroll transactions and billing are typically done via _____.

A. integrated processing
B. batch processing
C. Online Transaction Processing (OLTP)
D. offline transaction processing

Answer: B
Section: (none)

Explanation/Reference:
pg 175,176
Figure 5.3a
Figure 5.3b

With batch processing systems, business transactions are accumulated over a period of time and prepared for processing as a single unit or batch.

With Online Transaction Processing (OLTP), each transaction is processed immediately, without the delay of accumulating transactions into a batch

QUESTION 2
Which one of the following is NOT an objective of a Transaction Processing System (TPS)-

A. Increased inventory levels.
B. To maintain a high degree of accuracy and integrity.
C. To produce timely user responses and reports.
D. To increase labour efficiency.

Answer: A
Section: (none)

Explanation/Reference:
pg 176,177

Objectives of a Transaction Processing System (TPS) include:

Process data generated by and about transactions.
- Maintain a high degree of accuracy and integrity.
- Avoid processing fraudulent transactions.
- Produce timely user responses and reports.
- Increase labour efficiency.
- Help improve customer service.
- Help build and maintain customer loyalty.
- Achieve competitive advantage.

Increased inventory level is NOT an OBJECTIVE of a TPS.

QUESTION 3
Data should be captured at its source, and
it should be recorded accurately, in a timely fashion, with minimal manual effort, and in a form that can be directly entered into the computer
rather than keying the data from some type of document. This approach to the process of _____ is called _____.

A. data storage; animated sourcing
B. data collection; source data automation
C. data editing; online editing
D. data collection; source data animation

Answer: B
Section: (none)

Explanation/Reference:
pg 178 ,1789

Data collection begins with transaction (e.g., taking customer order) and results in data that serves as input to the TPS. Data should be captured at its source and recorded accurately in a timely fashion, with minimal manual effort, and in an electronic or digital form that can be directly entered into the computer. This approach is called 'source data automation'.

Data storage is the process of updating one or more databases with new transactions.

Data editing is the process of checking data for validity and completeness

QUESTION 4
Data storage is the process of performing calculations and other data transformations related to business transactions.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg 179

Data storage is the process of updating one or more databases with new transactions.

QUESTION 5
The TPS that supports the purchasing business function includes:

a. Inventory control
b. Purchase order processing
c. Sending
d. Receiving
e. Accounts payable

A. only b and e
B. only a, b and e
C. only a, b, d and e
D. a, b, c, d and e

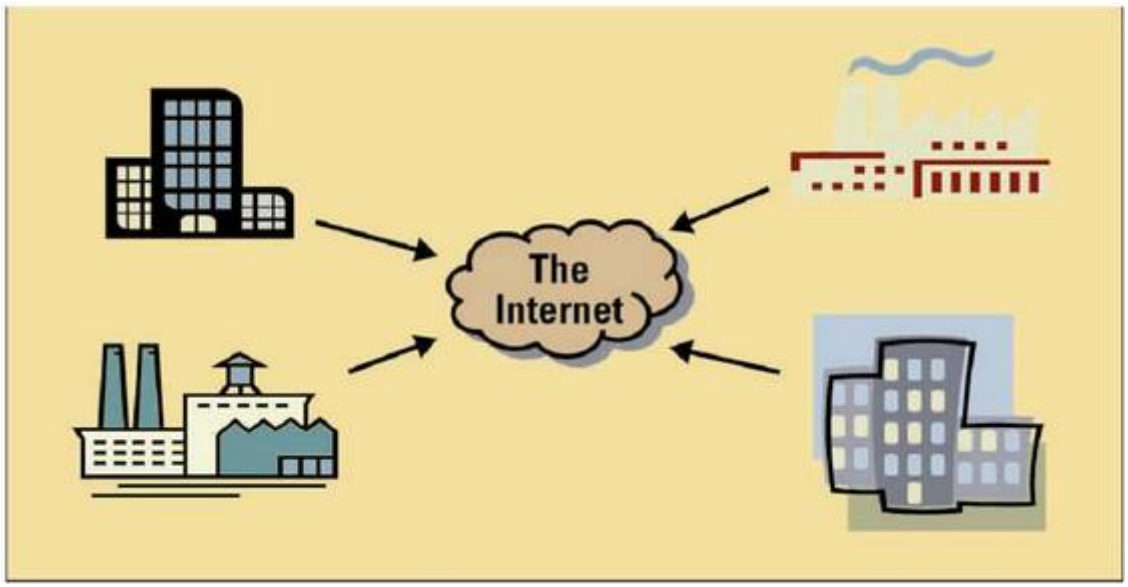
Answer: C
Section: (none)

Explanation/Reference:
pg 183,
Table 5.4

The TPS that supports the purchasing business function includes:

(a) Inventory control,
(b) Purchase order processing,
(d) Receiving and
(e)Accounts payable.

QUESTION 6
Which form of Electronic Commerce (ecommerce) is depicted in the following diagram-



A. GovernmenttoBusiness (G2B)
B. BusinesstoConsumer (B2C)
C. ConsumertoConsumer (C2C)
D. BusinesstoBusiness (B2B)

Answer: D
Section: (none)

Explanation/Reference:
pg 186,187

BusinesstoBusiness (B2B) ecommerce is a subset of ecommerce where all the participants are organizations.

egovernment is the use of information and communications technology to simplify the sharing of information, speed formerly paperbased processes, and improve the relationship between citizen and government.

- GovernmenttoConsumer (G2C),
- GovernmenttoBusiness (G2B), and
- GovernmenttoGovernment (G2G) are all forms of

egovernment, each with different applications. G2B applications support the purchase of materials and services from private industry by government procurement offices, enable firms to bid on government contracts, and help businesses receive current government regulations related to their operations.

Electronic commerce is conducting a business transaction (e.g., distribution, buying, selling, and servicing) electronically over computer networks, primarily the Internet but also extranets, and corporate networks. Business activities that are strong candidates for conversion to ecommerce are paper based, timeconsuming, and inconvenient for customers. Thus, some of the first business processes that companies converted to an ecommerce model were those related to buying and selling. Integrated ecommerce systems directly link a firm's website, which allows customers to place orders, with its order

processing system. This is the traditional BusinesstoConsumer (B2C) ecommerce model.

ConsumertoConsumer (C2C) ecommerce is another subset of ecommerce that involves consumers selling directly to other consumers.

QUESTION 7
Which one of the following statements regarding electronic and mobile commerce applications is TRUE-

A. In the manufacturing arena, electronic retailing is the direct sale of products or services by businesses to consumers through electronic storefronts, which are typically designed around the familiar electronic cat alog and shopping cart model.
B. In the marketing arena, an electronic exchange is an electronic forum where manufacturers, suppliers a nd competitors buy and sell goods, trade market information and run backoffice applications.
C. In the investment and finance arena, electronic bill presentment is a method of billing whereby a vendor posts an image of your statement on the Internet and alerts you by email that your bill has arrived.
D. In the retail and wholesale arena, technologyenabled relationship management occurs when a firm obtai ns detailed information about a customer's behavior, preferences, needs and buying patterns and uses that information to set prices, negotiate terms, tailor promotions, ad d product features and otherwise customize its entire relationship with that customer.

Answer: C
Section: (none)

Explanation/Reference:
pg 189,191,192

In the investment and finance arena, electronic bill presentment is a method of billing whereby a vendor posts an image of your statement on the Internet and alerts you by email that your bill has arrived.

In the retail and wholesale arena, electronic retailing is the direct sale of products or services by businesses to consumers through electronic shops, which are typically designed around the familiar electronic catalogue and shopping cart model.

In the manufacturing arena, an electronic exchange is an electronic forum where manufacturers, suppliers and competitors buy and sell goods, trade market information and run back office operations.

In the marketing arena, technology enabled occurs when a firm obtains detailed information about a customer's behaviour, preferences, needs and buying patterns and uses that information to set prices, negotiate terms, tailor promotions, add product features and otherwise customize its entire relatio nship with that customer.

QUESTION 8
Tally Lohman receives his electricity bills over the Internet. He receives an email alert each time one is read y for payment. This is an example of ____.

A. online banking
B. electronic bill presentment
C. database billing
D. online transaction presentment

Answer: B
Section: (none)

Explanation/Reference:
pg 192

Electronic bill presentment eliminates all paper, right down to the bill itself. With this process, the vendor posts an image of your statement on the Internet and alerts you by email that your bill has arrived. You then direct your bank to pay it.

QUESTION 9
What are the ADVANTAGES of electronic and mobile commerce-

a. Ecommerce allows manufacturers to buy at a
low cost worldwide and offers enterprises the chance to sell to a global market right from the very sta rtup of their business.
b. By eliminating or reducing timeconsuming and labor–
intensive steps throughout the order and delivery process, more sales can be completed in the same period with increased accuracy.
c.
When organizations are connected via ecommerce, the flow of information is accelerated because of the already established electronic connections and communications processes.
d.
By enabling buyers to enter their own product specifications and order information correctly, human d ataentry error on the part of the supplier is eliminated.
e.
Increased and more detailed information about delivery dates and current status can increase custo mer loyalty.

A. only a, b and c
B. only b, d and e
C. only a, b, c and d
D. a, b, c, d and e

Answer: D
Section: (none)

Explanation/Reference:
pg 193

Advantages of electronic and mobile commerce include:

- Global reach. Ecommerce offers enormous opportunities.
  It allows manufacturers to buy at a low cost worldwide, and it offers enterprises the chance to sell to a global market right from the very startup of their business (a). Moreover, ecommerce offers great promise for developing countries, helping them to enter the prosperous global marketplace, and hence helping reduce the gap between rich and poor countries.
- Reduce costs. By eliminating or reducing timeconsuming and labourintensive steps throughout the order and delivery process, more sales can be completed in the same period and with increased accuracy (b). With increased speed and accuracy of customer order information, companies can reduce the need for inventory – from raw materials,
  to safety stocks, to finished goods – at all the intermediate manufacturing, storage, and transportation points.
- Speed the flow of goods and information. When organizations are connected via ecommerce, the flow of information is accelerated because of the already established electronic connections and communications processes (c). As a result, information can
  flow easily, directly, and rapidly from buyer to seller.
- Increased accuracy: By enabling buyers to enter their own product specifications and order information correctly, human dataentry error on the part of the supplier is eliminated (d).
- Improve customer service. Increased and more detailed information about delivery dates and current status can increase customer loyalty (e). In addition, the ability to consistently meet customers' desired delivery dates with highquality goods and services eliminates any incentive for customers to seek other sources of supply.

QUESTION 10
Enterprise Resource Planning (ERP) evolved from ____.

A. Customer Relationship Management (CRM)
B. Materials Requirements Planning (MRP)
C. sales and operations planning
D. demand management

Answer: B
Section: (none)

Explanation/Reference:
pg 194, Figure 5.12

Enterprise Resource Planning (ERP) systems evolved from Materials Requirement Planning Systems (MRP) in 1970s.

MRP determines the amount and timing for placing raw material orders with suppliers.

A Customer Relationship Management (CRM) system helps a company manage all aspects of customer encounters, including marketing and advertising, sales, customer service after the sale, and programs to keep and retain loyal customers.

The sales and operations plan takes demand and current inventory levels into account and determines the specific product items that need to be produced and when to meet the forecast future demand.

Demand management refines the production plan by determining the amount of weekly or daily production needed to meet the demand for individual products.

QUESTION 11
Which one of the following is NOT a benefit of an ERP system-

A. Improvement of work processes.
B. Increase in access to data for operational decision making.
C. Elimination of costly, inflexible legacy systems.
D. Little expense and time in implementation.

Answer: D
Section: (none)

Explanation/Reference:
pg 193, 195196

ERP is a set of integrated programs that manage a company's vital business operations for an entire multisite, global organization.

The primary benefits of implementing ERP include:
- Improved Access to Data for Operational Decision Making
- Elimination of Costly, Inflexible Legacy Systems
- Improvement of Work Processes
- Upgrade of Technology Infrastructure

Little expense and time in implementation is NOT a benefit of an ERP system.

QUESTION 12
When developing a production plan, the _ ___ takes demand and current inventory levels into accou

nt and determines the specific product items that need to be produced and when to meet the forecast future demand.

A. sales forecasting
B. sales and operations plan
C. demand management
D. purchasing plan

Answer: B
Section: (none)

Explanation/Reference:
pg 197

ERP systems follow a systematic process for developing a production plan that draws on the information available in the ERP system database. The process starts with sales forecasting to develop an estimate of future customer demand.

The sales and operations plan takes demand and current inventory levels into account and determines the specific product items that need to be produced and when to meet the forecast future demand.

Demand management refines the production plan by determining the amount of weekly or daily production needed to meet the demand for individual products.

QUESTION 13
The goal of __ __ is to understand and anticipate the needs of current and potential customers to i ncrease customer retention and loyalty while optimizing the way that products and services are sold.

A. CRM
B. database management
C. transaction processing
D. data manipulation

Answer: A
Section: (none)

Explanation/Reference:
pg 199

The goal of CRM is to understand and anticipate the needs of current and potential customers to increase customer retention and loyalty while optimizing the way that products and service are sold.

QUESTION 14
Identify the complications that multinational corporations must address in planning, building and operating th eir TPSs.

a. Different languages and cultures
b. Disparities in information system infrastructure
c. Varying laws and customs rules
d. Multiple currencies

A. only a and b
B. only b and c

C. only a, b and d
D. a, b, c and d

Answer: D
Section: (none)

Explanation/Reference:
pg 202203

Operational systems must support businesses that interoperate with customers, suppliers, business partners, shareholders, and government agencies in multiple countries. Different languages and cultures
(a),disparities in information systems infrastructure
(b), varying laws and customs rules
(c), and multiple currencies
(d) are among the challenges
that must be met by an operational system of a multinational company.

QUESTION 15
In the ____ stage of the problem solving process, decision makers evaluate the implementation to determine whether the anticipated results were achieved and to modify the process in light of new information.

A. implementation
B. monitoring
C. design
D. intelligence

Answer: B
Section: (none)

Explanation/Reference:
pg 213

The three stages of decision making –
1. intelligence,
2. design, and
3. choice –
are augmented by implementation and monitoring to result in problem solving.

The first stage in the problemsolving process is the intelligence stage. During this stage, you identify and define potential problems or opportunities.

In the design stage, you develop alternative solutions to the problem. In addition, you evaluate the feasibility of these alternatives.

The last stage of the decisionmaking phase, the choice stage, requires selecting a course of action.

Problem solving includes and goes beyond decision making. It also includes the implementation stage, when the solution is put into effect.

The final stage of the problemsolving process is the monitoring stage. In this stage, decision makers evaluate the implementation to determine whether the anticipated results were achieved and to modify the process in light of new information.

QUESTION 16
Automatically ordering more inventories when levels drop below a certain point is an example of a (n) ____d ecision.

A. ad hoc
B. programmed
C. nonprogrammed
D. optimized

Answer: B
Section: (none)

Explanation/Reference:
pg 213 , 214

Programmed decisions are decisions made using a rule, procedure, or quantitative methods. For example, to say that inventory should be ordered when inventory levels drop to 100 units.

Nonprogrammed decisions, however, deal with unusual or exceptional situations. In many cases, these decisions are difficult to quantify.

Determining the appropriate training program for a new employee, deciding whether to start a new type of product line, and weighing the benefits and drawbacks of installing a new pollution control system are examples.

Optimization model finds the best solution, usually the one that will best help the organization meet its goals.

QUESTION 17
The following diagram is a typical illustration of a_____decision.

A. programmed
B. structured
C. nonprogrammed
D. optimization

Answer: C
Section: (none)

Explanation/Reference:
pg 213, 214

Programmed decisions are decisions made using a rule, procedure, or quantitative methods. For example, to say that inventory should be ordered when inventory levels drop to 100 units.

Nonprogrammed decisions, however, deal with unusual or exceptional situations. In many cases, these decisions are difficult to quantify.

Determining the appropriate training program for a new employee, deciding whether to start a new type of product

line, and weighing the benefits and drawbacks of installing a new pollution control system are examples.

Optimization model finds the best solution, usually the one that will best help the organization meet its goals.

QUESTION 18
The output from most Management Information Systems (MISs) is a collection of reports that are distributed to managers. Match the description of a report with the relevant term.

DESCRIPTION OF REPORT
Marie receives a production report every Thursday. This is an example of a (n) ____.
Produced to summarize previous day's critical activities, allows managers to take quick, corrective action.
Produced only when requested, and only with required information.
Frank Gray wanted to know more detailed information about his department's weekly overtime figures. He used a_____ to help in this endeavor.

A. scheduled report; exception reports; demand reports; drilldown report
B. exception report; drilldown reports; scheduled reports; keyindicator report
C. keyindicator reports; scheduled reports; demand report; exception report
D. scheduled report; keyindicator reports; demand reports; drilldown report

Answer: D
Section: (none)

Explanation/Reference:
pg 217, 220

Scheduled Reports are
reports which are produced periodically, or on a schedule, such as daily, weekly, or monthly.

Key Indicator Reports are the summary of the previous day's critical activities; typically available at the begin ning of each workday.

Demand Reports are the reports which are developed to give certain information at someone's request.

Drilldown Reports are the reports which provide increasingly detailed data about a situation.

QUESTION 19
DaimlerChrysler will be using its new _____ to build the 2011 Pacifica minivan on the same manufacturing line as other leading minivans. This approach will allow DaimlerChrysler to quickly and efficiently change its product specifications.

A. Flexible Manufacturing System (FMS)
B. ComputerIntegrated Manufacturing (CIM)
C. Computer Aided Design (CAD)
D. Computer Assisted Manufacturing (CAM)

Answer: A
Section: (none)

Explanation/Reference:
pg 224,225,226
Figure 6.9

A Flexible Manufacturing System (FMS) allows a manufacturer to quickly and efficiently change from making one product to another (in this case changing their existing manufacturing line to build the new minivan).

ComputerIntegrated Manufacturing (CIM) uses computers to link the components of the production process into an effective system.

Manufacturing companies often use ComputerAided Design (CAD) with new or existing products.

Computer aided manufacturing (CAM) is a system that directly controls manufacturing equipment.

QUESTION 20
The purpose of ____ is to conduct a formal study of the market and customer preferences.

A. quality control
B. marketing research
C. promotion and advertising
D. sales analysis

Answer: B
Section: (none)

Explanation/Reference:
pg 226, 227

The purpose of marketing research is to conduct a formal study of the market and customer preferences. Computer systems are used to help conduct and analyze the results of surveys, questionnaires, pilot studies, and interviews.

With increased pressure from consumers and a general concern for productivity and high quality, today's manufacturing organizations are placing more emphasis on quality control, a process that ensures that the finished product meets the customers' needs.

One of the most important functions of any marketing effort is promotion and advertising. Product success is a direct function of the types of advertising and sales promotion done. Increasingly, organizations are using the Internet to advertise and sell products and services.

Computerized sales analysis is important to identify products, sales personnel, and customers that contribute to profits and those that do not.

QUESTION 21
The overall purpose of the ____ subsystem of the human resource MIS (HRMIS) is to put the right number and kinds of employees in the right jobs when they are needed.

A. human resource planning
B. personnel selection and recruiting
C. training and skills inventory
D. scheduling and job placement

Answer: A
Section: (none)

Explanation/Reference:
pg 229230, Figure 6.12

Human resource subsystems and outputs range from the determination of human resource needs and hiring through retirement and outplacement. Most medium and large organizations have computer

systems to assist with human resource planning, hiring, training and skills inventorying, and wage and salary administration. Outputs of the human resource MIS include reports, such as human resource planning reports, job application review profiles, skills inventory reports, and salary surveys.

- Human resource planning. One of the first aspects of any HRMIS is determining personnel and human needs. The overall purpose of this MIS subsystem is to put the right number and kinds of employees in the right jobs when they are needed.
- Personnel selection and recruiting. If the human resource plan reveals that additional personnel are required, the next logical step is recruiting and selecting personnel.
- Training and skills inventory. Some jobs, such as programming, equipment repair, and tax preparation, require very specific training for new employees.
- Scheduling and job placement. Employee schedules are developed for each employee, showing his or her job assignments over the next week or month.
- Wage and salary administration. Another HRMIS subsystem involves determining salaries and benefits, including medical insurance and pension payments.

QUESTION 22
MISs provides useful summary reports to help solve_____ problems, whereas DSSs offer the pote ntial to
assist in solving both_____problems.

A. structured and semistructured; semistructured and unstructured
B. unstructured and semistructured; structured and unstructured
C. semistructured and unstructured; structured and semistructured
D. structured and unstructured; unstructured and semistructured

Answer: A
Section: (none)

Explanation/Reference:
pg 231

MIS provide useful summary to help solve structured and semi structured business problems while Decision Support Systems (DSS) offers the potential in solving both semistructured and unstructured problems.

QUESTION 23
DIFFERENCES between Decision Support Systems (DSSs) and MISs include:

	DSS	MIS
a.	Typically oriented towards printed reports and documents.	Usually screen oriented, with the ability to generate reports on a printer.
b.	Emphasizes actual decisions and decision-making styles.	Usually emphasizes information only.
c.	Is flexible and better able to respond to user requests.	Response time is usually longer.

A. only a and b
B. only a and c
C. only b and c
D. a, b and c

Answer: C
Section: (none)

Explanation/Reference:
pg 233,
Table 6.2

The differences between MIS and DSS are:

- Problem Type: DSS handle unstructured problems while MSS is used in structured problems.
- Users: DSS supports individuals, small groups and the organizations while the MIS support the entire organization.
- Support: DSS supports all aspects of decision making and MIS makes some automatic decisions.
- Emphasis Approach: DSS emphasize actual decisions and decision making styles and MIS is an indirect system that uses produced reports (b).
- Speed: DSS is flexible and be implemented by users and in MIS response is always longer (c).
- Output: In DSS reports are screen oriented while in MIS we have printed reports (a).
- Development: In DSS users are directly involved in its development and in the MIS it seldom that people who used to work with it are using it.

QUESTION 24
The database management system allows managers and decision makers to perform ____ on the company ’s vast stores of data in databases, data warehouses, and data marts.

A. brainstorming analysis
B. qualitative analysis
C. delphi analysis
D. intelligent analysis

Answer: B
Section: (none)

Explanation/Reference:
pg 234

The database management system allows managers and decisions makers to perform qualitative analysis on the company’s vast stores of data in databases, data warehouses and data marts.

QUESTION 25
A Group Support System (GSS) is a DSS aiming to support _____.

A. Geographic decisions
B. Graphic decisions
C. Global decisions
D. Group decisions

Answer: D
Section: (none)

Explanation/Reference:
pg 236

Group Support Systems (GSS) is the software application that consists of most elements in a DSS, plus software to provide effective support in group decision making;
also called ‘group decision support system’.

QUESTION 26
Explicit knowledge is subjective and can be measured and documented in reports, papers and rules.

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
pg 250

Explicit knowledge is objective and can be measured and documented in reports, papers and rules.

Tacit knowledge is hard to measure and document and is typically not objective or formalized.

QUESTION 27
Which one of the following attributes is measured as HIGH in humans but LOW in machines-

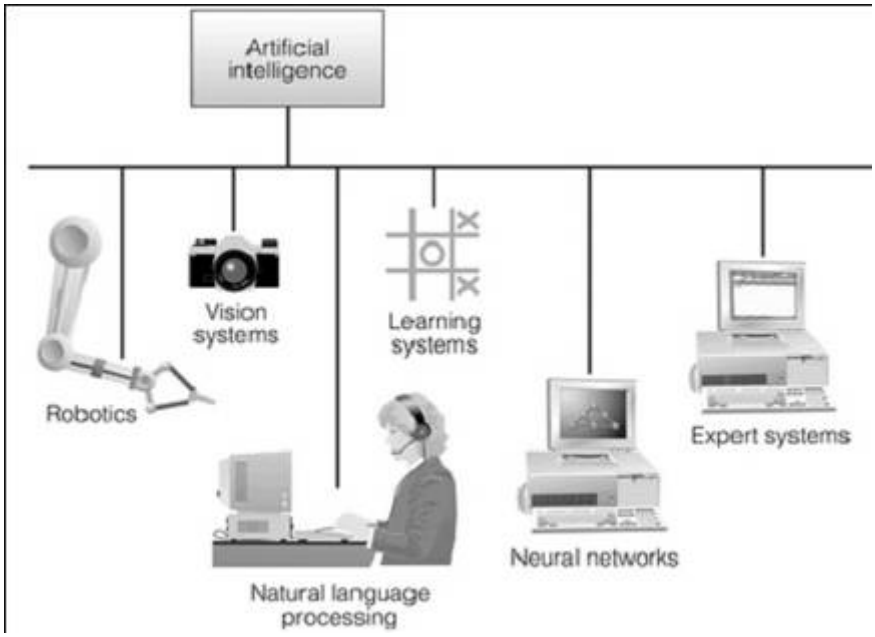
A. The ability to use a variety of information sources.
B. The ability to make complex calculations.
C. The ability to use sensors.
D. The ability to acquire a large amount of external information.

Answer: C
Section: (none)

Explanation/Reference:
pg 256, Table 7.1

- The ability to use sensors is HIGH in humans but LOW in machines.
- The ability to use a variety of information sources is HIGH in humans and HIGH in machines.
- The ability to make complex calculations is LOW in humans and HIGH in machines.
- The ability to acquire a large amount of external information is HIGH in humans and HIGH in machines.

QUESTION 28



The figure above displays the major elements of a (n) ____.

A. DSS

B. artificial intelligence system
C. TPS
D. ComputerBased Information System (CBIS)

Answer: B
Section: (none)

Explanation/Reference:
pg 258

The major branches of artificial intelligence includes:
- expert systems
- robotics
- visions systems
- natural language processing
- learning systems
- neural networks

QUESTION 29
Microbots are the size of a (n) _____.

A. apple
B. watch face
C. finger nail
D. grain of salt

Answer: D
Section: (none)

Explanation/Reference:
pg 260

Microrobotics
is a developing area. Also called microelectromechanical systems (MEMS), microrobots are the size of a gr ain of salt and can be used in a person's
blood to monitor the body, and for other purposes in air bags, cell phones, refrigerators, and more

QUESTION 30
Which application would be suited to the use of a neural network-

A. Performing rapid financial calculations.
B. Performing complex optimization operations.
C. Making inventory reorder decisions.
D. Analyzing detailed trends to determine staffing needs.

Answer: D
Section: (none)

Explanation/Reference:
pg 264

A neural network is a computer system which attempts to simulate the
functioning of the human brain. A particular skill of the neural network is to analyze detailed trends. For example the analyzing detailed trends to determine staffing needs.

QUESTION 31

An expert system ____ stores all relevant information, data, rules, cases and relationships used by the expe rt system.

A. explanation facility
B. inference engine
C. knowledge base
D. user interface

Answer: C
Section: (none)

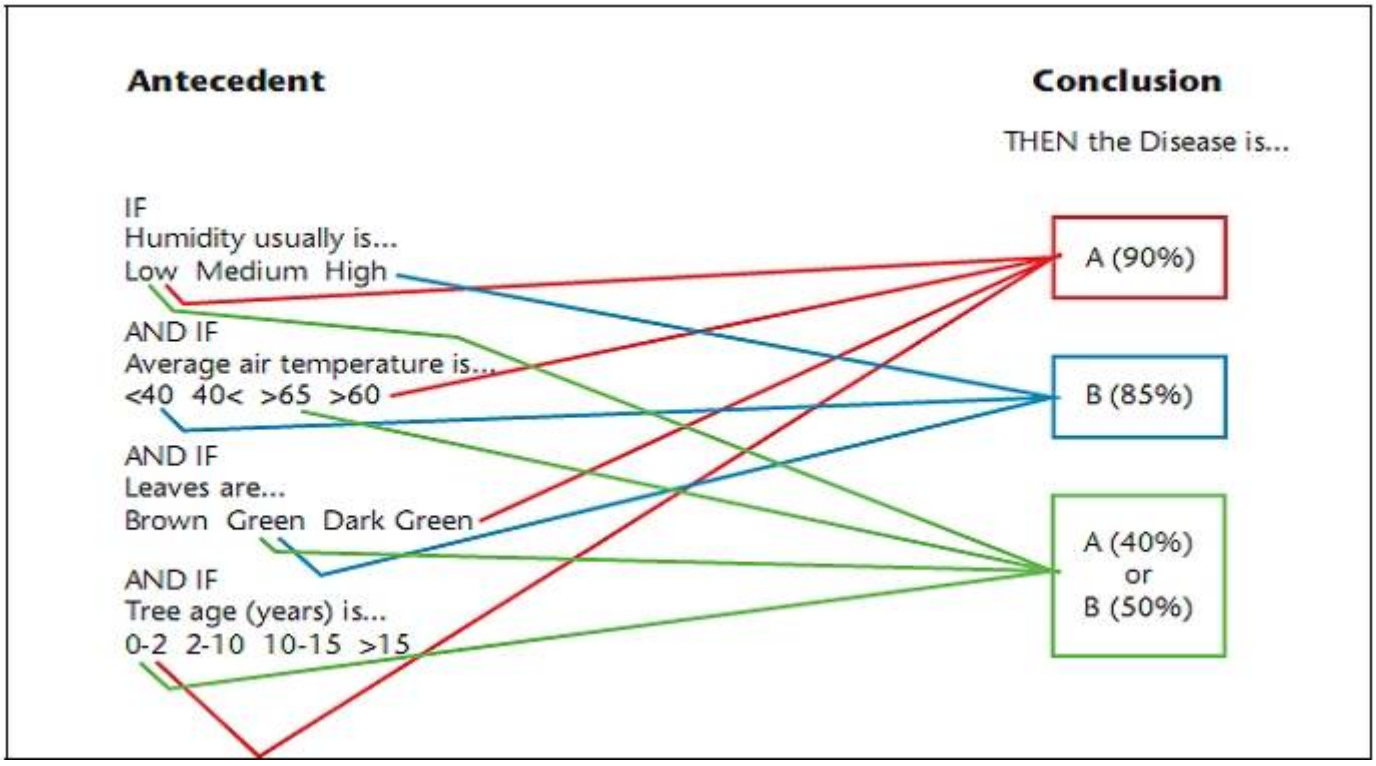
Explanation/Reference:
pg 267,268,269,
Figure 7.9

The knowledge base stores all relevant information, data, rules, cases, and relationships that the expert system uses. An important part of an expert system is the explanation facility, which allows a user or decision maker to understand how the expert system arrived at certain conclusions or results.

The overall purpose of an inference engine is to seek information and relationships from the knowledge base and to provide answers, predictions, and suggestions the way a human expert would.

Specialized user interface software is employed for designing, creating, updating and using expert systems. The main purpose is to make an expert system easier for users and decision makers to develop and use.

QUESTION 32
The following diagram is an example of _____, one of the tools and techniques that can be used to cr eate a knowledge base.



A. fuzzy logic
B. cases

C. rules
D. forward chaining

Answer: C
Section: (none)

Explanation/Reference:
pg 268,269
Figure 6.10

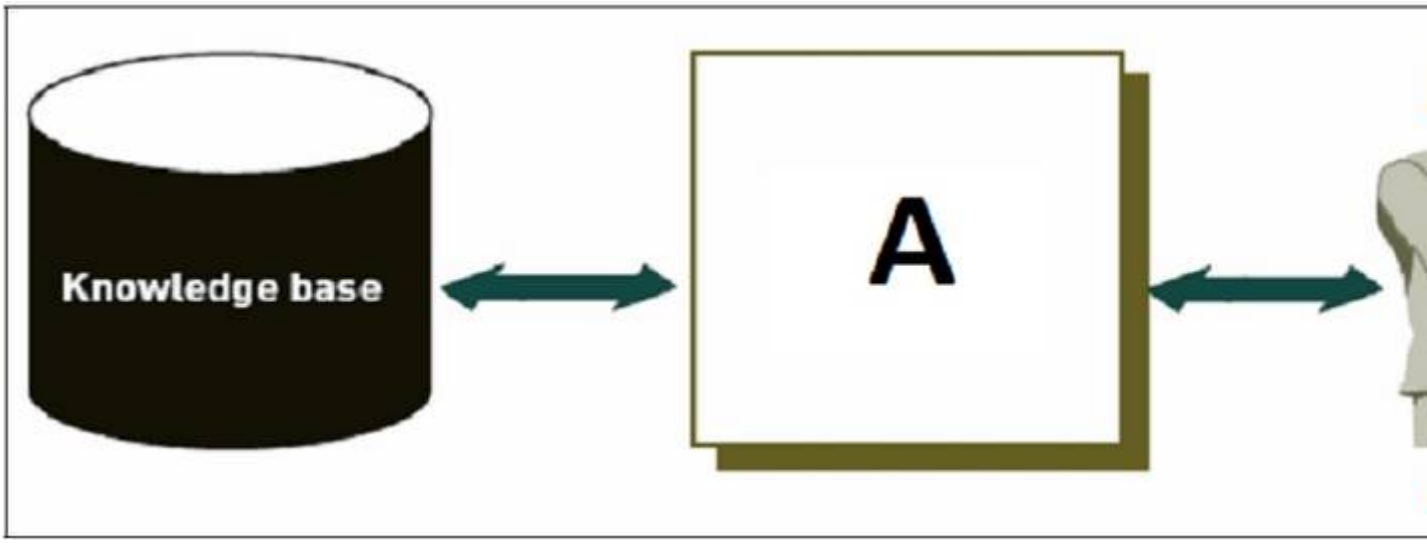
A rule is a conditional statement that links conditions to actions or outcomes. In many instances, these rules are stored as IFTHEN statements, such as 'IF
a certain set of network conditions exists, THEN a certain network problem diagnosis is appropriate'.

Fuzzy logic is used to capture knowledge and relationships that are not exact or precise.

An expert system can use cases in developing a solution to a current problem or situation. This process involves (1) finding cases stored in the knowledge base
that are similar to the problem or situation at hand
and (2) modifying the solutions to the cases to fit or accommodate the current problem or situation.

Forward chaining starts with the facts and works forward to the conclusions.

QUESTION 33
Specialized software enables users and decision makers to create and modify their own knowledge bases t hrough the use of the ____denoted by the letter 'A' in the following diagram.



A. user interface
B. knowledge acquisition facility
C. inference engine
D. explanation facility

Answer: B
Section: (none)

Explanation/Reference:
pg 269

The knowledge acquisition facility is the component of an expert system that provides convenient and efficient means of capturing and storing all the components of the knowledge base. For example, knowledge acquisition facility allows users and decision makers

to create and modify their knowledge base.

Specialized user interface software is employed for designing, creating, updating and using expert systems. The main purpose is to make an expert system easier for users and decision makers to develop and use.

The overall purpose of an inference engine is to seek information and relationships from the knowledge base and to provide answers, predictions, and suggestions the way a human expert would.

The knowledge base stores all relevant information, data, rules, cases, and relationships that the expert system uses. An important part of an expert system is the explanation facility, which allows a user or decision maker to understand how the expert system arrived at certain conclusions or results.

QUESTION 34

- -
  James has been delegated the task of developing an expert system to help consumers choose a vehicle that best suits their budget.
- -James interviews Shawn, who has an extensive knowledge on vehicles.
- Fred uses the expert system to aid him in purchasing a car.

James, Shawn and Fred are _____ ,_____ and _____respectively.

A. knowledge engineer; knowledge user; domain expert
B. knowledge engineer; domain expert; knowledge user
C. domain expert; knowledge engineer; knowledge user
D. knowledge user; domain expert; knowledge engineer

Answer: B
Section: (none)

Explanation/Reference:
pg 270

A knowledge engineer is a person who has training or experience in the design, development, implementation, and maintenance of an expert system, including training or experience with expert system shells. For example, James is involved in the development of an expert system to help consumers choose a vehicle that best suit their budget.

The domain expert is the person or group with the expertise or knowledge the expert system is trying to capture. For example, Shawn has extensive knowledge on vehicles.

The knowledge user is the person or group who uses and benefits from the expert system. For example, Fred uses the expert system to aid him in purchasing a car.

QUESTION 35
An expert system shell _____.

A. is a group of people who design, develop and implement expert systems
B. is a collection of integrated components such as a knowledge base, a knowledge base acquisition facility and an explanation facility
C. is a collection of software packages and tools used to design, develop, implement and maintain expert systems
D. interacts with expert system components

Answer: C
Section: (none)

Explanation/Reference:
An expert system shell is a collection of software packages and tools used to design , develop , implement, and maintain expert systems.

QUESTION 36
_____is the last step in IS planning.

A. Set schedules and deadlines
B. Set priorities and select projects
C. Develop an IS planning document
D. Develop overall objectives

Answer: C
Section: (none)

Explanation/Reference:
pg 295

The steps involved in planning in a chronological order are:
- Strategic plan
- develop overall objectives
- identify IS projects from previously unplanned systems projects
- set priorities and select projects
- analyze resource requirements
- set schedules and deadlines
- develop IS planning documents

QUESTION 37
Systems design seeks to answer the question “How will the information system do what it must do to obtain the problem solution-”

A. True
B. False

Answer: A
Section: (none)

Explanation/Reference:
pg 297

The question systems design seeks to answer is ‘how will the information system do what it must do to obtain the problem solution-’

QUESTION 38
Andrew and Aaron were tired of waiting for their expense book software to be developed by the IS departme nt, so they received guidance from the IS department and created their own. This is an example of ____.

A. Rapid Application Development (RAD)
B. enduser systems development
C. the traditional Systems Development Life Cycle (SDLC)
D. prototyping

Answer: B
Section: (none)

Explanation/Reference:
pg 296300
Table 8.2
Figure 8.3 , Figure 8.4

Enduser systems development is when the users assume
the primary effort and the IS professionals encourage them by offering guidance and support.

Rapid Application Development (RAD) employs tools, techniques,
and methodologies designed to speed up application development. One of the disadvantages of RAD is that this intense systems development lifecycle (SDLC) can burn out systems developers
and other project participants.

Prototyping, also known as the evolutionary lifecycle, takes an iterative approach to the systems development process. During iterations, requirements and alternative solutions to the problem are identified and analyzed, new solutions are designed, and a portion of the system is implemented.

Traditional systems development efforts can range from a small project, such as purchasing an inexpensive computer program, to a major undertaking. The steps of traditional systems development might vary from one company to the next, but most approaches have five common phases: investigation, analysis, design, implementation, and
maintenance and review. Traditional systems development is also known as the waterfall approach.

QUESTION 39

The table of contents for a _ ___ is illustrated in the figure above.

A. systems analysis report
B. systems design report
C. systems investigation report
D. Request For Proposal (RFP) document

Answer: C
Section: (none)

Explanation/Reference:
pg 304, 309,311, 313
Figure 8.5 ,Figure 8.10,Figure 8.11

System investigation report

is a summary of the results of the systems investigation and the process of feasibility analysis and recomme ndation of a course of action.

Systems analysis report which covers the strengths and weaknesses of the existing system from a stakeholder's perspective, the user/stakeholder requirements for the new system and the organizational requirements of the new system.

Request for Proposal (RFP) is a document that specifies in detail required sources such as hardware and software.

Systems design report include the primary result of systems design, reflecting the decisions made and preparing the way of systems implementation

QUESTION 40
The system analysis group for John & Flora Private Limited, decided to gather data about the problems identified in the systems investigation report. They decided on the following data collection techniques:

(a) structured interview
(b) direct observation

Which one of the following options best explains these techniques-

A. A pilot study is conducted and the questions are finetuned; team members observe the structured interview
B. Questions for the interview are prepared in advance; direct observation of the system in action
C. Interview is structured for the ease of presentation; interview is observed by the management

Answer: B
Section: (none)

Explanation/Reference:
pg 306

- Structured interview is an interview where the questions are prepared in advance.
- Direct observation is watching the existing system in action by one or more members of the analysis team.

QUESTION 41
Logical systems design refers to ____.

A. development of software and hardware
B. how the tasks are accomplished
C. who will accomplish the tasks
D. what the system will do

Answer: D
Section: (none)

Explanation/Reference:
pg 311

Logical system design
is a description of the functional requirements of a system. This design asks questions like what the system will do.

QUESTION 42
The Twilled Beef Company is down to just three proposals for their new ERP system. Now they need to con

duct a
____, which takes a detailed look at these proposals.

A. RFP quotation
B. final evaluation
C. preliminary evaluation
D. feasibility analysis

Answer: B
Section: (none)

Explanation/Reference:
pg 303,312,313
Figure 8.11

A preliminary evaluation begins after all proposals have been submitted.
The purpose of this evaluation is to dismiss unwanted proposals. Several vendors can usually be eliminated by investigating their proposals and comparing them with the original criteria. The final evaluation begins with a detailed investigation of the proposals offered by the remaining vendors.

The Request for Proposal (RFP) is an important document for many organizations involved with large, complex systems development efforts.

A key step of the systems investigation phase is feasibility analysis, which assesses technical, economic, legal, operational, and schedule feasibility.

QUESTION 43
Good testing procedures are essential to make new or modified information systems operate as intended.
_____ testing involves testing an incomplete or early version of the system, while _____ tes ting involves testing a complete and stable system by end users.

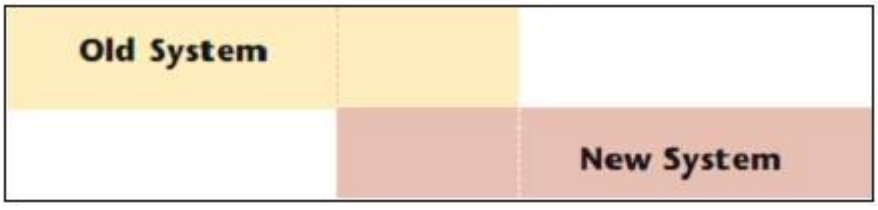
A. Unit; system
B. Volume; integration
C. Acceptance; integration
D. Alpha; beta

Answer: D
Section: (none)

Explanation/Reference:
pg 317

- Alpha testing involves testing of an incomplete or early version of the system
- Beta testing involves testing a complete and stable system by end users

QUESTION 44
The following diagram depicts_____ .



A. the phasein approach
B. direct conversion
C. pilot running
D. parallel running

Answer: A
Section: (none)

Explanation/Reference:
318, Figure 8.13

The phasein approach is a popular technique preferred by many organizations. In this approach, sometimes called a piecemeal approach, components of the new system are slowly phased in while components of the old one are slowly phased out.

Direct conversion (also called plunge or direct cutover) is stopping the old system and starting the new system on a given date.

Parallel running involves running both the old and new systems for a period of time.

Pilot running involves introducing the new system with direct conversion for one group of users rather than all users.

QUESTION 45
A (n) ____ review is triggered by a problem or opportunity such as an error, a corporate merger, or a new m arket
for products.

A. marketdriven
B. eventdriven
C. timedriven
D. ad hoc

Answer: B
Section: (none)

Explanation/Reference:
pg 320

An eventdriven review is triggered by a problem or opportunity such as an error, a corporate merger, or a new market for products.

A timedriven review is performed after a specified amount of time.

QUESTION 46
To prevent computerrelated waste and mistakes, steps must be taken. The table below outlines these steps.

Arrange the steps in the CORRECT sequence.

STEPS	ORDER
Review existing policies and procedures and determine whether or not these are adequate.	I
Monitor routine practices and take corrective action if necessary.	II
Implement policies and procedures to minimize waste and mistakes according to business conducted.	III
Establish policies and procedures regarding efficient acquisition, use, and disposal of systems and devices.	IV

A. I, II, III, IV
B. I, II, IV, III
C. IV, II, III, I
D. IV, III, II, I

Answer: D
Section: (none)

Explanation/Reference:
pg 335

Prevention of computerrelated wastes and mistakes involves:
- Establishing policies and procedures regarding efficient acquisition, use and disposal of systems and devices (IV)
- Implementing policies and procedures to minimize waste and mistakes according to business conducted (III)
- Monitoring routine practices and take corrective action if necessary (II)
- Reviewing existing policies and procedures and determine whether or not these are adequate (I)

QUESTION 47
Many organizations implement ____ to measure actual results against established goals, such as percentag
e
of enduser reports produced on time, percentage of data input errors detected, number of input transactions
entered per eighthour shift, and so on.

A. ergonomics
B. internal audits
C. biometrics
D. external audits

Answer: B
Section: (none)

Explanation/Reference:
pg 335.343,344,353
Figure 9.3

In the monitoring policies and procedures many organizations implement internal audits to measure actual results against established goals, such as percentage of endusers reports produced on time, percentage of datainput errors detected, number of input transactions entered per eight hour shift, and so on.

Using biometrics is another way to protect important data and information systems. Biometrics involves the measurement of one of a person's traits, whether physical or behavioural. Biometric techniques compare a person's unique characteristics against a stored set to detect differences between them. Biometric systems can scan fingerprints, faces, handprints, irises, and retinal images to

prevent unauthorized access to important data and computer resources.

Ergonomics is the science of designing machines, products and systems to maximize the safety, comfort and efficiency of the people who use them.

QUESTION 48
____ involves the use of one's social skills to get computer users to provide you with information to access a n information system and/or its data.

A. Dumpster diving
B. Social engineering
C. Software piracy
D. Password sniffing

Answer: B
Section: (none)

Explanation/Reference:
pg 336, 341

Social engineering is using one's social skills to get computer users to provide you with information to access an information system or its data.

Software piracy is the act of illegally duplicating software.

QUESTION 49
People cover the keypad when typing their credit card Personal Identification Number (PIN) to prevent ____ __.

A. script kiddies
B. social engineering
C. shoulder surfing
D. cyberterrorism

Answer: C
Section: (none)

Explanation/Reference:
pg 336,337, 338
Figure 91

Another popular method to get information is 'shoulder surfing' – the identity thief simply stands next to someone at a public office, such as the passport office, or even when filling in a form to join a video rental shop such as Blockbuster, and watches as the person fills out personal information on a form. The same thing can happen at a bank ATM where the attacker simply watches the person enter their PIN, or at a shop when the victim is using their credit card to make a purchase.

A cracker, often called a hacker, although this term has a range of meanings, is a computersavvy person who attempts to gain unauthorized or illegal access to computer systems.

Script kiddies admire crackers, but have little technical savvy. They are crackers who download programs called 'scripts' that automate the job of breaking into computers.

Social engineering is using one's social skills to get computer users to provide you with information to acces s an information system or its data.

A cyberterrorist is someone who intimidates or coerces a government or organization to advance their political or social objectives by launching computerbased attacks against computers, networks,

and the information Stored

QUESTION 50
Which statement
(s) regarding the DIFFERENCES between viruses, worms and Trojan horses is (are) CORRECT-

a. A virus is a computer program file capable of attaching to disks or other files and replicating itself repeatedly, typically without the user's knowledge or permission.

b.
Worms are parasitic computer programs that replicate but, unlike viruses, do not infect other computer program files.
Worms can create copies on the same computer or can send the copies to other computers via a netw ork.

c.
A Trojan horse program is a malicious program that disguises itself as a useful application and purpos efully does
something the user does not expect. Trojans are not viruses, since they do not replicate, but they can be just as destructive.

A. only a
B. only b
C. only c
D. b and c

Answer: D
Section: (none)

Explanation/Reference:

- Statement a explains what a virus is but it does not compare it to either worms or Trojan.
- Statement b explains what worms are and compares them to viruses.
- Statement c explains a Trojan horse and compares it to virus.

Both option b and c are correct.

QUESTION 51
Frank bought one copy of MSWord and installed it on twelve of his friends' computers for half price. He is a (n) ____.

A. application hacker
B. software pirate
C. Internet pirate
D. password sniffer

Answer: B
Section: (none)

Explanation/Reference:
pg 342

Like books and movies – other intellectual properties – software is protected by copyright laws. Often, people who would never think of plagiarizing another
author's written work have no qualms about using and copying software programs they have not paid for. Such illegal duplicators are called 'pirates'; the act of illegally
duplicating software is called software piracy.

QUESTION 52
Tim Brown entered the computer center after a device scanned his retina. ____ are being used to protect th e information systems in this organization.

A. Public Key Infrastructure (PKI)
B. Biometrics
C. Biologicals
D. Managed Security Service Providers (MSSPs)

Answer: B
Section: (none)

Explanation/Reference:
pg 343,344,346
Figure 9.3

Using biometrics is another way to protect important data and information systems. Biometrics involves the measurement of one of a person's traits, whether physical or behavioural. Biometric techniques compare a person's unique characteristics against a stored set to detect differences between them. Biometric systems can scan fingerprints
faces, handprints, irises, and retinal images to prevent unauthorized
access to important data and computer resources.

PublicKey Infrastructure (PKI) enables users of an unsecured public network such as the Internet to securely and privately exchange data through the use of
a public and a private cryptographic key pair that is obtained and stored through a trusted authority.

Managed Security Service Providers (MSSPs) monitor, manage and
maintain network security for both hardware and software for small and midsized organizations.

QUESTION 53
A whois query allows someone to find out _____.

A. who owns a particular email address
B. who owns a particular Internet domain name
C. who owns a particular piece of software
D. who owns a particular database

Answer: B
Section: (none)

Explanation/Reference:
pg 350

Whois query is a query which can be done in many websites. It is
important to know that once you register a domain it becomes public domain and that it can be accessed by anyone including children.

QUESTION 54
Tom went through 80 hours of training
in a virtual environment. Upon completion, he experienced wrist pain, numbness and difficulty in grasping and holding objects. Tom may be suffering from _____.

A. Carpal Tunnel Syndrome (CTS)
B. dislocated wrist syndrome

C. Repetitive Stress Injury (RSI)
D. repetitive motion disorder

Answer: A
Section: (none)

Explanation/Reference:
pg 352

Computer use can affect physical health as well. Strains, sprains, tendonitis, tennis elbow, the inability to hold objects, and sharp pain in the fingers can result. Also common is Repetitive Strain Injuries
(RSI), including Carpal Tunnel Syndrome (CTS), which is the aggravation of the pathway for nerves that trav el through the wrist (the carpal tunnel). CTS involves wrist pain, a feeling of tingling and numbness, and difficulty grasping and holding objects

QUESTION 55
The hazardous activities associated with unfavorable computer related conditions are collectively referred to as _____.

A. work stressors
B. carpal tunnel syndrome
C. repetitive stress disorder
D. ergonomics

Answer: A
Section: (none)

Explanation/Reference:
pg 353

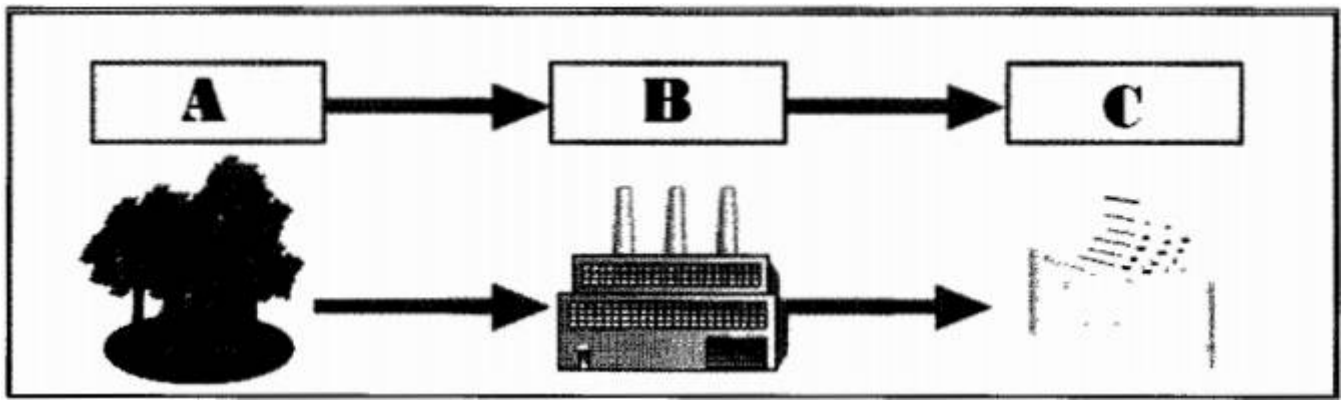
Work stressors are hazardous activities associated with unfavourable conditions caused by computer screens, desks and chairs, keyboards.

Carpal Tunnel Syndrome (CTS), which is the aggravation of the pathway for nerves that travel through the w rist (the carpal tunnel). CTS involves wrist pain, a feeling of tingling and numbness, and difficulty grasping and holding objects

Ergonomics is the science of designing machines, products and systems to maximize the safety, comfort and efficiency of the people who use them.

Exam D

QUESTION 1
The following diagram depicts the components of a system Identify components A, B and C respectively



A. processing, output, input
B. input, processing, output
C. feedback, processing, output
D. output, feedback, input

Answer: B
Section: (none)

Explanation/Reference:
Systems have inputs, processing mechanisms, outputs, and feedback

QUESTION 2
A record club has a goal of retaining 100 percent of its subscribers following the completion of their trial period

Their actual retention rate is only 62 of every 100 subscriptions This system is .

A. 62 percent efficient
B. 62 percent effective
C. 38 percent efficient
D. 38 percent effective

Answer: B
Section: (none)

Explanation/Reference:

effectiveness A measure of the extent to which a system achieves its goals; it can be computed by dividing the goals actually achieved by the total of the stated goals.

efficiency A measure of what is produced divided by what is consumed.

QUESTION 3
A sales receipt Is an example of feedback from an information system

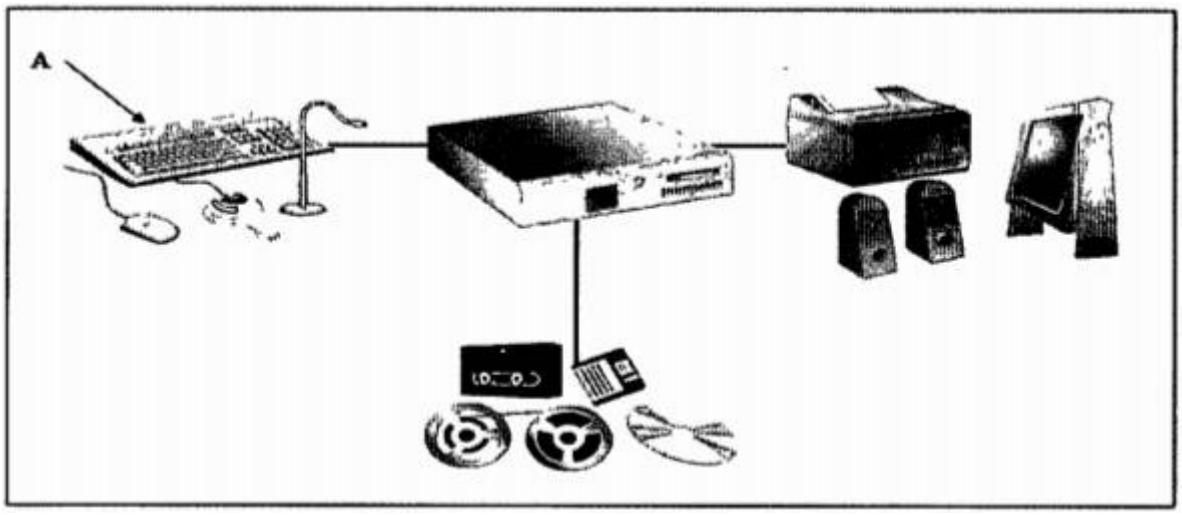
A. True

B. False

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 4
The figure below illustrates , in which the component identified by A can be classified as



A. hardware, an input device
B. computer, a keyboard
C. keyboard, telecommunication device
D. mouse, a network system

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 5
Which of the following statements regarding the DIFFERENCES between a management information system (MIS) and a decision support system (DSS) are CORRECT-

A. A MIS is an organised collection of people, procedures, software, databases and devices used to record completed business transactions
B. A DSS is an organised collection of people, procedures, sotware, databases and devices used to support problem-specific decision making
C. A DSS focuses primarily on operational efficiency
D. A MIS focuses on decision-making effectiveness
E. Whereas an MIS helps an organisation " do things right", a DSS helps a manager "do the right thing"

Answer: ABDE
Section: (none)

Explanation/Reference:
pg 233,

Table 6.2

The differences between MIS and DSS are:

- Problem Type: DSS handle unstructured problems while MSS is used in structured problems.
- Users: DSS supports individuals, small groups and the organizations while the MIS support the entire organization.
- Support: DSS supports all aspects of decision making and MIS makes some automatic decisions.
- Emphasis Approach: DSS emphasize actual decisions and decision making styles and MIS is an indirect system that uses produced reports .
- Speed: DSS is flexible and be implemented by users and in MIS response is always longer .
- Output: In DSS reports are screen oriented while in MIS we have printed reports .
- Development: In DSS users are directly involved in its development and in the MIS it seldom that people who used to work with it are using it.

QUESTION 6
Which one of the following is NOT considered to be one of the primary responsibilities of an information systems department-

A. operations
B. support
C. systems development
D. systems planning

Answer: D
Section: (none)

Explanation/Reference:

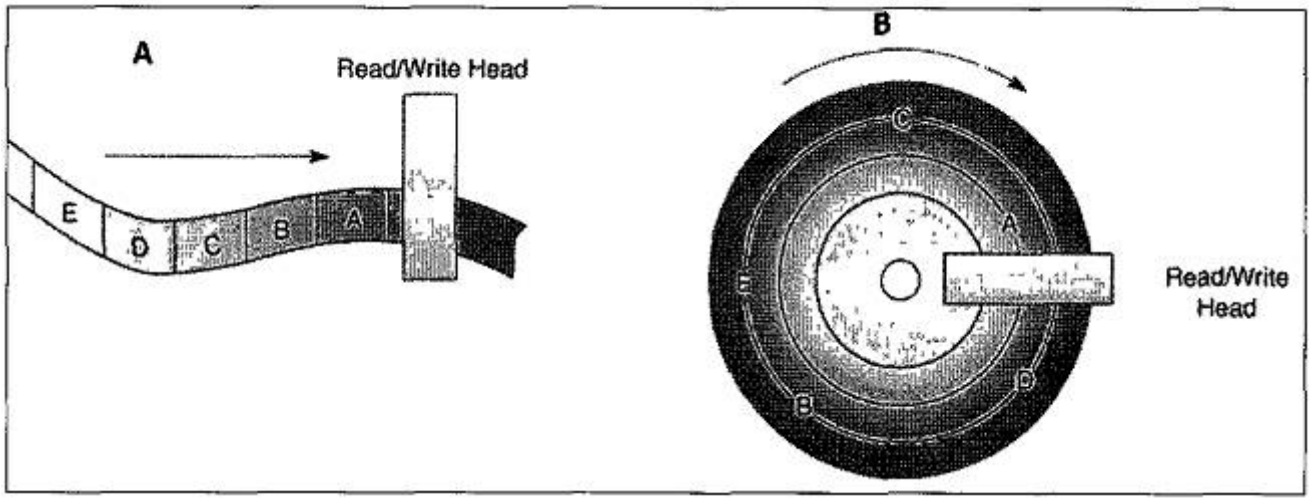
QUESTION 7
Secondary storage is closely associated with the central processing unit (CPU)

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:

QUESTION 8
Which forms ofdirect access are represented respectively by the letters A and B in the following diagram-



A. direct, sequential
B. sequential, linear
C. direct, linear
D. sequential, direct

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 9
Data that can be read by magnetic ink character recognition (MICR) devices are

A. becoming obsolete
B. reliant on characters that humans cannot read
C. human readable, but must be converted for the computer
D. human and machine readable

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 10
Which one of the following statements regarding measuring the quality of screen images is FALSE-

A. The quality of a screen image is often measured by the number of horizontal and vertical pixels used to create it The more pixels per square centimetre, the lower the clarity of the image
B. It is possible to use the dot pitch to measure image quality The smaller the dot pitch, the better the picture
C. Greater pixel densities and smaller dot pitches yield sharper images of higher resolution
D. The common range of dot pitch is from 0,25 mm to 0,31 mm

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 11
Which one of the following computer systems has the fastest processing speed-

A. mainframe computers
B. midrange computers
C. workstations
D. supercomputers

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 12
From the list below, how MANY are NOT activities performed by the operating system (OSP)-

- Performing common computer hardware functions
- Providing a user interface and input/output management
- Providing a degree of hardware independence
- Managing system memory
- Managing processing tasks
- Providing networking capability
- Controlling access to system resources
- Managing files

A. 3
B. 5
C. 2
D. 0

Answer: D
Section: (none)

Explanation/Reference:
OS Functions
- Performing common computer hardware functions
- Providing a user interface and input/output management
- Providing a degree of hardware independence
- Managing system memory
- Managing processing tasks
- Providing networking capability
- Controlling access to system resources
- Managing files

QUESTION 13
Which of the following statements regarding pre-emptive multitasking are CORRECT-

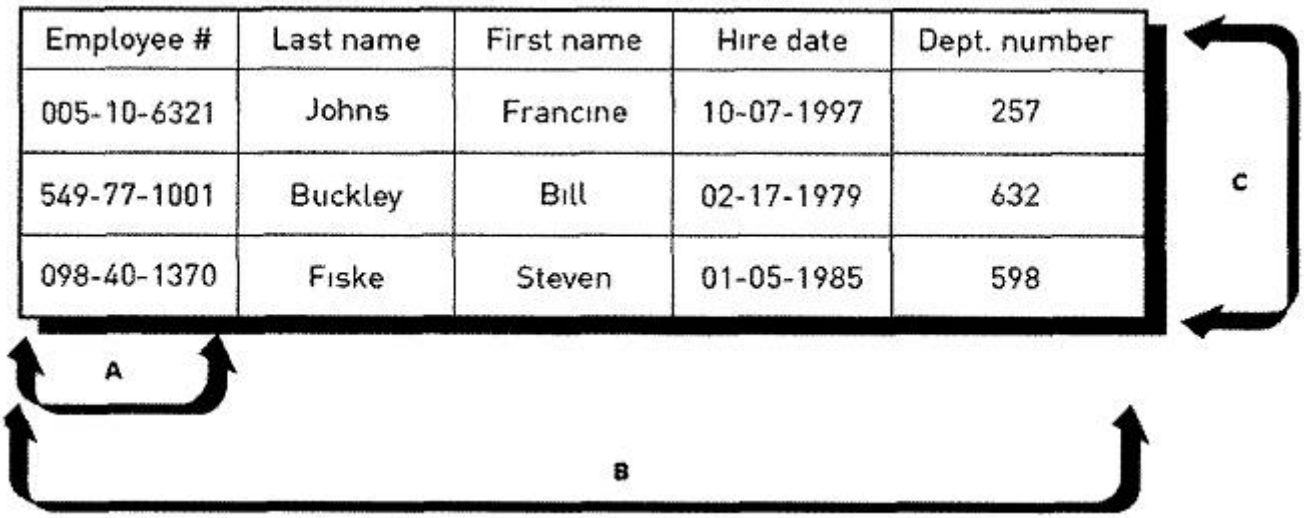
- a. Under pre-emptive multitasking, a computer OS uses some criteria to decide how much time to allocate to any one task before giving another task a turn to use the OS
- b. Elapsed time is a common criterion for pre-empting
- c. Pre-emptive multitasking ensures that each process gets the right amount of CPU time and the system resources it needs for optimal efficiency and responsiveness

A. only a and b
B. only b
C. only b and c
D. a, b and c

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 14
Study the following diagram that represents a fictitious employee table What do the letters A, B and C represent respectively-



A. primary key, fields, records
B. foreign key, primary key, entity
C. record, fields, attributes
D. identification key, attributes, foreign key

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 15
The following diagram illustrates the DISADVANTAGES of the

Disadvantages	Explanation
More complexity	DBMSs can be difficult to set up and operate. Many decisions must be made correctly for the DBMS to work effectively In addition, users have to learn new procedures to take full advantage of a DBMS.
More difficult to recover from a failure	With the traditional approach to file management, a failure of a file affects only a single program. With a DBMS, a failure can shut down the entire database
More expensive	DBMSs can be more expensive to purchase and operate. The expense includes the cost of the database and specialized personnel, such as a database administrator, who is needed to design and operate the database. Additional hardware might also be required.

A. database approach
B. data dictionary
C. enterprise rules
D. data definition language (DDL)

Answer: A
Section: (none)

Explanation/Reference:
pg 103, 104
Table3.1

enterprise rules - The rules governing relationships between entities

QUESTION 16
In relational database design, the _____of a relationship in an entity-relationship diagram (ERD) refers to whether each entity is related to one, or more than one, of the other entities.

A. degree
B. cardinality
C. optionality
D. index

Answer: B
Section: (none)

Explanation/Reference:

Degree - How many entities are involved

Optionality - If a binary relationship is optional for an entity, that entity doesnt have to be related to the other

QUESTION 17
Study the following database schema

Customer{Customer_Number#, FirstName, Surname Telephone}
Order{Order_Number#, Description, Price Colour Customer_Number}
Supplier{Supplier_Number# Company_Name, Contact_FirstName, Contact_Surname, Telephone}

Identify the foreign key(s) in this schema

A. FirstName, Description, Company_Name
B. Customer_Number; Order_Number
C. Customer_Number
D. Supplier_Number

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 18
Distributed databases_____

A. allow for greater flexibility in how databases are organised and used
B. are databases in which the data is spread across several smaller databases connected via telecommunications devices
C. use centralised databases to reduce telecommunication costs
D. present challenges in maintaining data security, accuracy and timeliness

Answer: ABD
Section: (none)

Explanation/Reference:

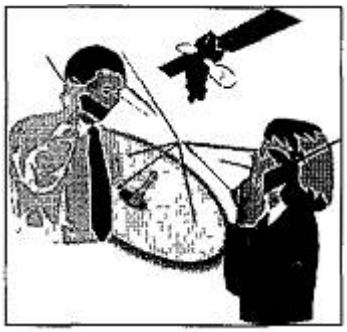
QUESTION 19
To speed up processing. Pill's Pottery sends a copy of important data to each of its five warehouses At the end of the day, any changes are sent back to the main database Pill's is using

A. open database connectivity (ODBC)
B. online analytical processing (OLAP)
C. replicated databases
D. data warehouses

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 20
What form of communication would generally be used in the following mode of communication-



A. asynchronous
B. disynchronous
C. bisynchronous
D. synchronous

Answer: D
Section: (none)

Explanation/Reference:

synchronous - Receiver gets message instantly (Phone Communication)

asynchronous - A measureable delay , Hours, Days - (Sending Letter through mail)

QUESTION 21
Identify the following network types

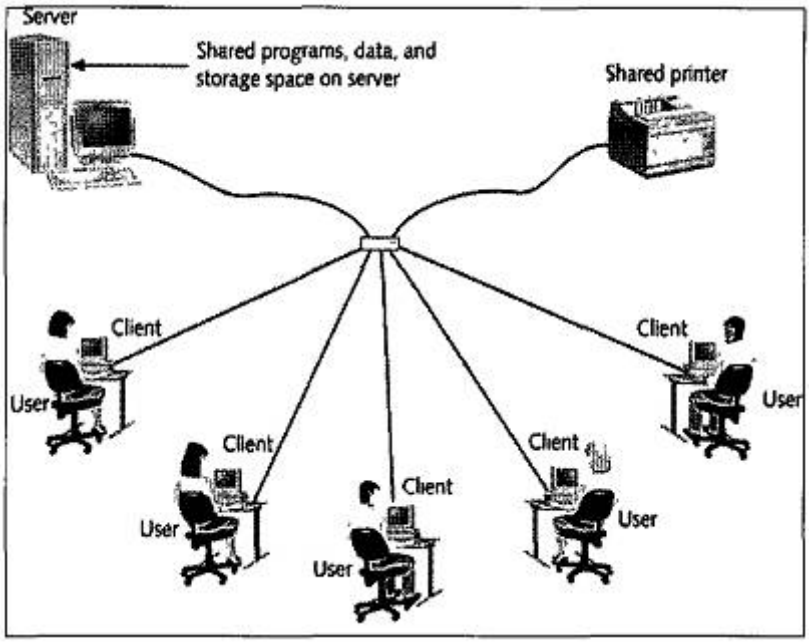
DESCRIPTION
A network that connects computer systems and devices within a small area, such as an office, home or several floors in a building, is a_____
A_____ is a wireless network that connects information technology devices within a range of three metres or so.
A ____ is a telecommunications network that connects users and their computers in a geographical area that spans a campus or city
A (n) ____ is a telecommunications network that connects large geographic regions

A. local area network (LAN), personal area network (PAN), metropolitan area network (MAN), wide area network (WAN)
B. LAN, PAN; WAN; MAN
C. PAN, LAN, WAN, MAN
D. LAN; PAN, MAN, international network

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 22
Which ARCHITECTURE is depicted in the following diagram -

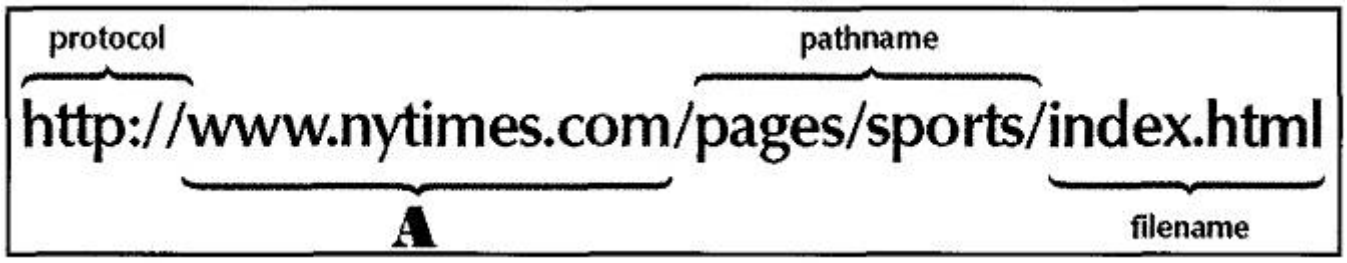


A. file-server connection
B. client/server connection
C. distributed processing
D. decentralised processing

Answer: B
Section: (none)

Explanation/Reference:

QUESTION 23
What does the letter A in the uniform resource locator (URL) in the following diagram depict-



A. nternet service provider (ISP) name
B. domain affiliation
C. domain name
D. web browser name

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 24
Figure A is a typical example of. _____, whereas Figure B is an example of_____

Figure A

Figure B

A. search engine, meta-search engine
B. meta-search engine, web browser
C. search engine, web browser
D. web browser, meta-search engine

Answer: B
Section: (none)

Explanation/Reference:

QUESTION 25
Meta tags are always shown on the web page when it is displayed

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:

QUESTION 26
Which one of the following transactions would be suited to batch processing-

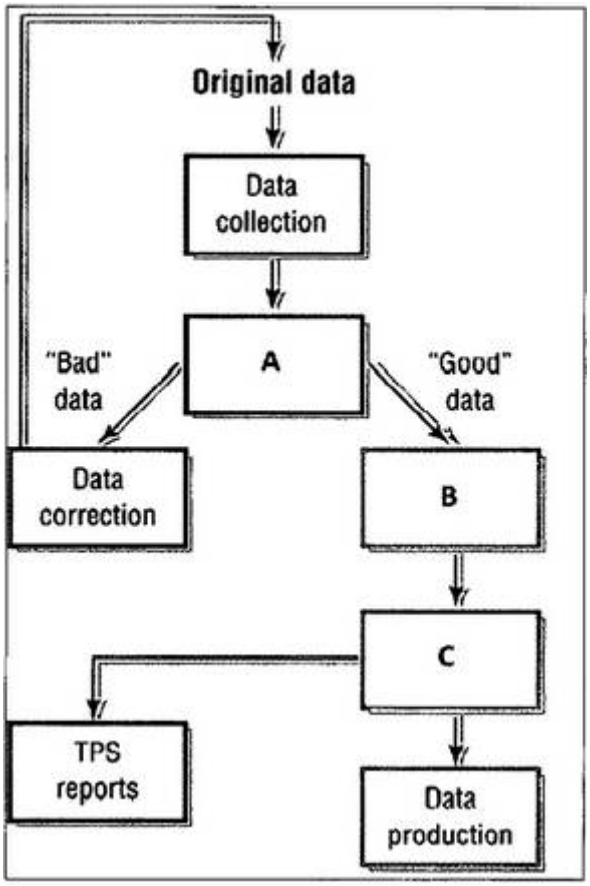
A. Airplane reservation by a travel agent
B. Withdrawal from a savings account at an automated teller machine (ATM)
C. Processing of acute medecine shipment

D. Processing of all students' examination results

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 27
The following diagram depicts data activities common to TPSs Identify activities A B and C respectively



A. data manipulation, data editing, data storage
B. data storage, data modification, data rectification
C. data storage, data modification, data manipulation
D. data editing, data manipulation, data storage

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 28
Business-to-consumer (B2C) e-commerce is a useful tool for connecting business partners in a virtual supply chain to cut resupply times and reduce costs

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:

B2B - connecting business partners in a virtual supply chain to cut resupply times and reduce costs

Business-to-consumer (B2C) e-commerce - Sells directly to consumers

QUESTION 29
Which of the following statements regarding enterprise resource planning (ERP), production and customer relationship management (CRM) are TRUE-

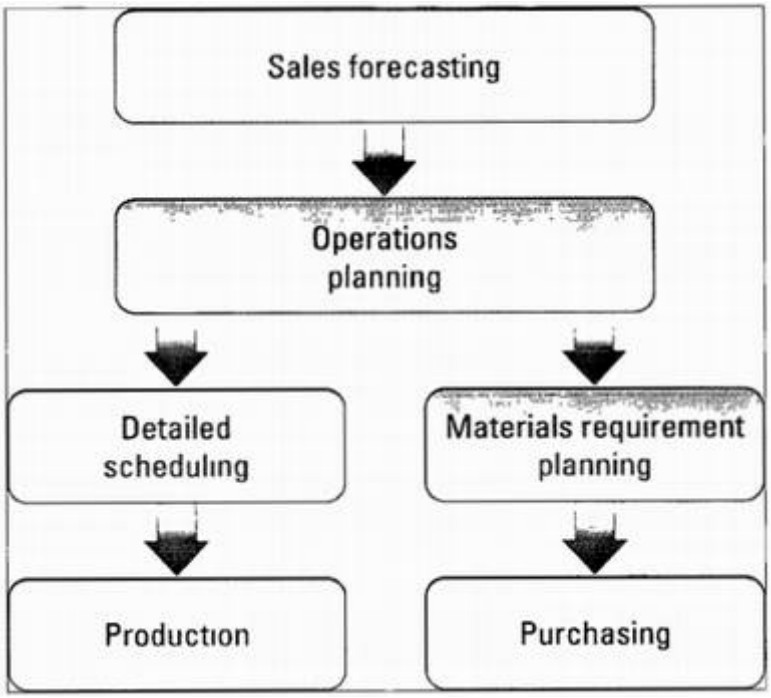
- a. ERP systems usually interface directly with production machines
- b. CRM software automates and integrates the functions of sales, marketing and service in an organisation
- c. In an ERP system, input to the general ledger occurs simultaneously with the input of a business transaction to a specific module
- d. When developing a production plan, retail scheduling refines the production plan by determining the amount of weekly or daily production needed to meet the demand for individual products

A. only a and d
B. only b and c
C. only a, c and d
D. a, b, c and d

Answer: B
Section: (none)

Explanation/Reference:

QUESTION 30
The following diagram depicts the systematic process for developing a production plan that draws on the information available in the CRM database

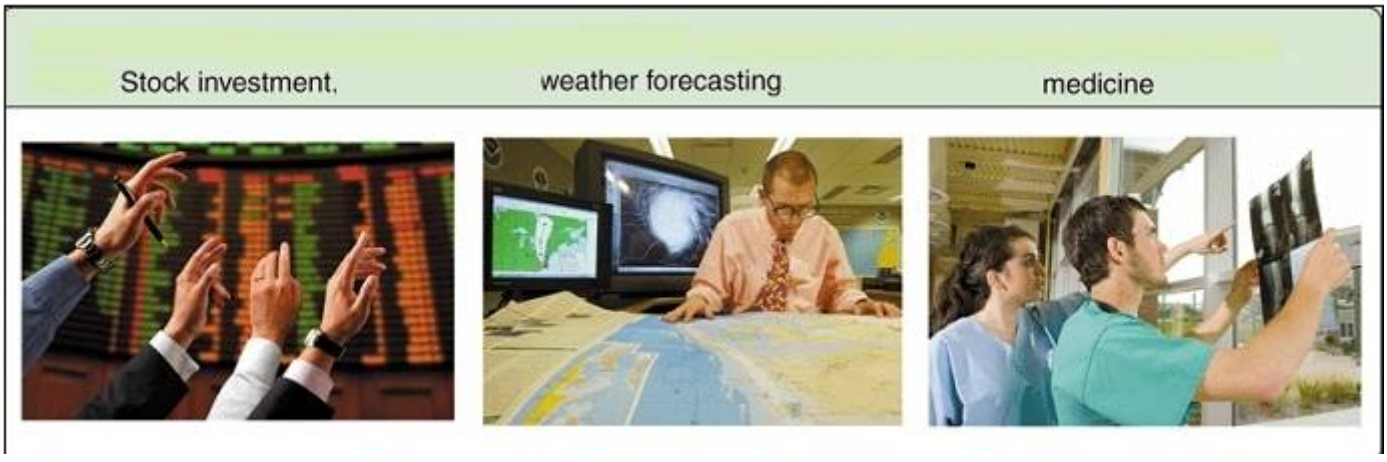


A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
TPS -Transaction Processing System

QUESTION 31
The following diagram is a typical illustration of a _____ decision



A. programmed
B. structured
C. non-programmed
D. optimisation

Answer: C

Section: (none)

Explanation/Reference:
g 213, 214

Programmed decisions are decisions made using a rule, procedure, or quantitative methods. For example, to say that inventory should be ordered when inventory levels drop to 100 units.

Nonprogrammed decisions, however, deal with unusual or exceptional situations. In many cases, these decisions are difficult to quantify.

Determining the appropriate training program for a new employee, deciding whether to start a new type of product line, and weighing the benefits and drawbacks of installing a new pollution control system are examples.

Optimization model finds the best solution, usually the one that will best help the organization meet its goals.

QUESTION 32
A _____ is an approach that allows manufacturing facilities to rapidly and efficiently change from making one product to another

A. flexible manufacturing system (FMS)
B. just-in-time (JIT) system
C. material requirements planning (MRP) system
D. computer-assisted system

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 33
The goal of computer-integrated manufacturing (CIM) is to tie together all aspects of production

A. True
B. False

Answer: A
Section: (none)

Explanation/Reference:
CIM - uses computers to link the components of a production process

QUESTION 34
MIS's provide useful summary reports to help solve_____ problems, whereas DSSs offer the potential to assist in solving both _____problems

A. structured and semi-structured, semi-structured and unstructured
B. unstructured and semi-structured, structured and unstructured
C. semi-structured and unstructured, structured and semi-structured
D. structured and unstructured, unstructured and semi-structured

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 35
At the tactical level, DSSs can help managers by providing analysis for long-term decisions requiring both internal and external information

A. True
B. False

Answer: B
Section: (none)

Explanation/Reference:
PG 232

Strategic Level - DSS can help managers by providing analysis for long term decisions requiring both internal and external information

Tactical Level - Tactical decision makers can use analysis tools to ensure proper planning and control

Operational Level - Operational Managers can get assistance with daily and routine decision making

QUESTION 36
In the diagram below, A is an example of,_____ problems and B is an example of_____ problems

A	B
How many workers are needed to fully staff production line A?	What are the benefits of merging with XYZ, Inc.?
What is our optimal order quantity for raw material Z, based on our production?	Where should we deploy the next five stores of our retail chain?
How many turbines are needed to supply power to Hickstown?	How will the consumer react if we lower the price of our product by 10 percent?
Which of our regions yields the highest revenue per salesperson?	What is the best advertisement campaign to launch our new financial service?
Which money market fund currently yields the highest return?	What are the benefits of opening an office in Paris, France?
How much would the implementation of pollution-preventing devices cost us?	Which stock will yield the highest return by the end of the year?

A. highly structured, semi-structured
B. semi-structured, unstructured
C. semi-structured; highly structured
D. highly structured, structured

Answer: A
Section: (none)

Explanation/Reference:
PG 232

QUESTION 37
DIFFERENCES between DSSs and MISs include

	DSS	MIS
a	Typically oriented towards printed reports and documents	Usually screen oriented with the ability to generate reports on a printer
b	Emphasises actual decisions and decision-making styles	Usually emphasises information only
c	Is flexible and better able to respond to user requests	Response time is usually longer

A. only a and b
B. only a and c
C. only b and c
D. a, b and c

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 38
Which of the following are CHARACTERISTICS of intelligent behaviour-

a. Learn from experience and apply the knowledge acquired from experience
b. Handle complex situations
c. Solve problems when important information is missing
d. React quickly and correctly to a new situation
e. Process and manipulate symbols

A. only b, c and d
B. only a and e
C. only a, b, c and d
D. a, b, c, d and e

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 39
If you fix your neighbour's computer through a variety of steps and yet are still unable to explain exactly why your actions solved the problem, you have used _____to solve the problem

A. intuition
B. extra sensory perception

C. heuristics
D. intelligent agents

Answer: C
Section: (none)

Explanation/Reference:

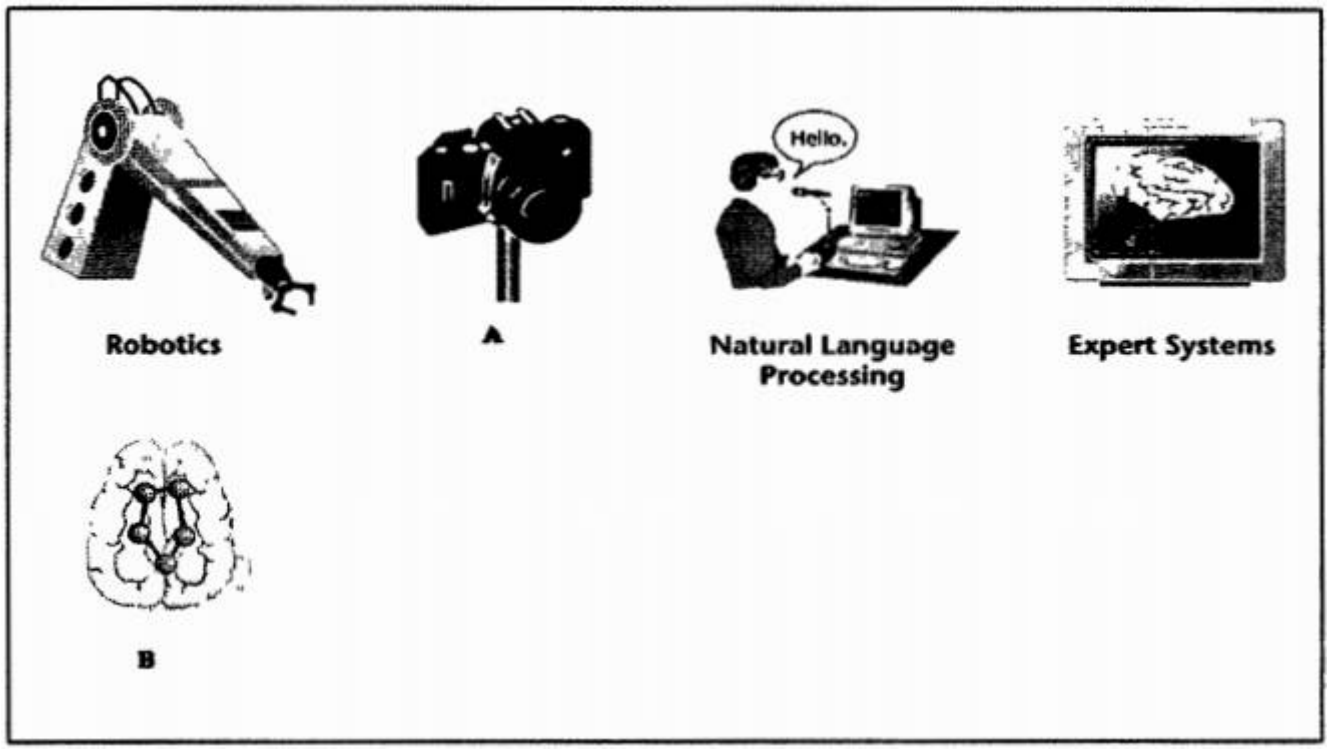
QUESTION 40
In which area does natural intelligence enjoy a distinct ADVANTAGE over artificial intelligence-

A. The ability to make complex calculations
B. The ability to transfer information
C. The ability to use a variety of information sources
D. The ability to use sensors

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 41
Which specialty areas of artificial intelligence (AI) are denoted by the letters A and B respectively in the following figure-

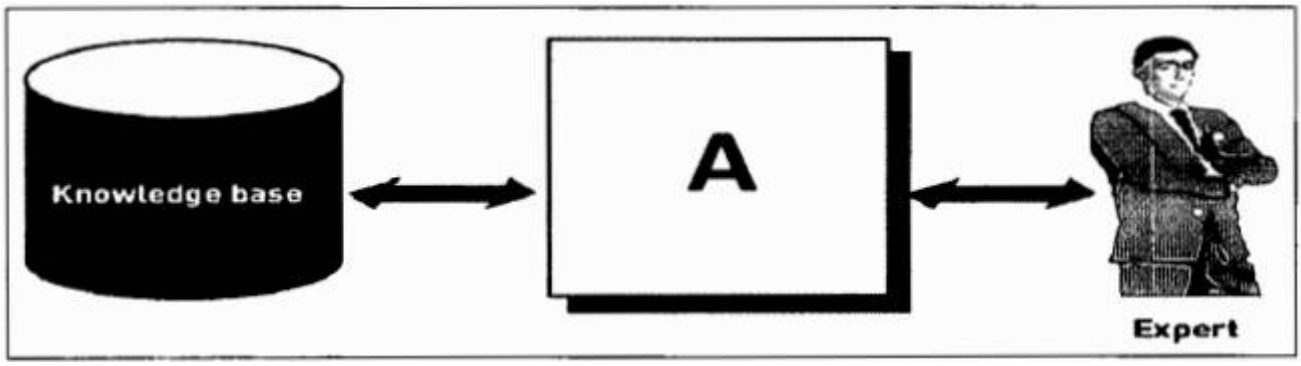


A. vision systems, fuzzy logic
B. focal systems, neural networks
C. vision systems, genetic algorithms
D. vision systems, neural networks

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 42
Specialised software enables users and decision makers to create and modify their own knowledge bases through the use of the denoted by the letter A in the following diagram



A. user interface
B. knowledge acquisition facility
C. inference engine
D. explanation facility

Answer: B
Section: (none)

Explanation/Reference:
pg 269

The knowledge acquisition facility is the component of an expert system that provides convenient and efficient means of capturing and storing all the components of the knowledge base. For example, knowledge acquisition facility allows users and decision makers to create and modify their knowledge base.

Specialized user interface software is employed for designing, creating, updating and using expert systems. The main purpose is to make an expert system easier for users and decision makers to develop and use.

The overall purpose of an inference engine is to seek information and relationships from the knowledge base and to provide answers, predictions, and suggestions the way a human expert would.

The knowledge base stores all relevant information, data, rules, cases, and relationships that the expert system uses. An important part of an expert system is the explanation facility, which allows a user or decision maker to understand how the expert system arrived at certain conclusions or results.

QUESTION 43
The _____ is the area of knowledge addressed by the expert system

A. range
B. domain

C. scope
D. flied

Answer: B
Section: (none)

Explanation/Reference:

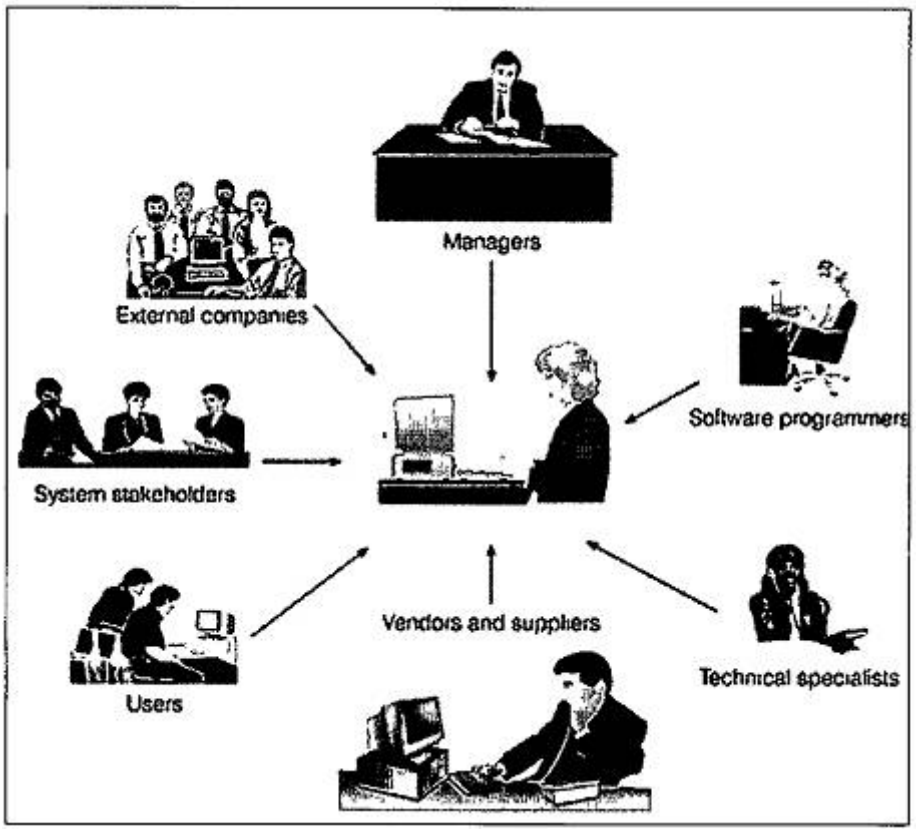
QUESTION 44
What type of virtual reality is used to make human beings feel as though they are in a three-dimensional setting, such as a building, an archaeological excavation site, the human anatomy, a sculpture or a crime scene reconstruction-

A. chaining
B. relative
C. immersive
D. virtual

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 45
In the figure above, the centre person is a



A. project manager

B. team leader
C. systems analyst
D. chief information officer (CIO)

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 46
The development team was pleased with the _____process It reduced paper documentation. automatically generated a programme source code and facilitated user participation in design and development

A. joint application development (JAD)
B. end-user systems development
C. operational prototyping
D. rapid application development (RAD)

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 47
Jackie Jackson is involved with systems investigation She would probably be most likely to use

A. upper-computer-aided software engineering (CASE) tools
B. lower-CASE tools
C. a visual programming language
D. a project PERT diagram

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 48
Due to several computer thefts in an organisation, the management decided to install biometric security systems As part of the feasibility analysis, the investigation team had to study the following

a. Whether the hardware and software can be acquired or developed to solve the problem
b. Whether the project can be put into action or operation

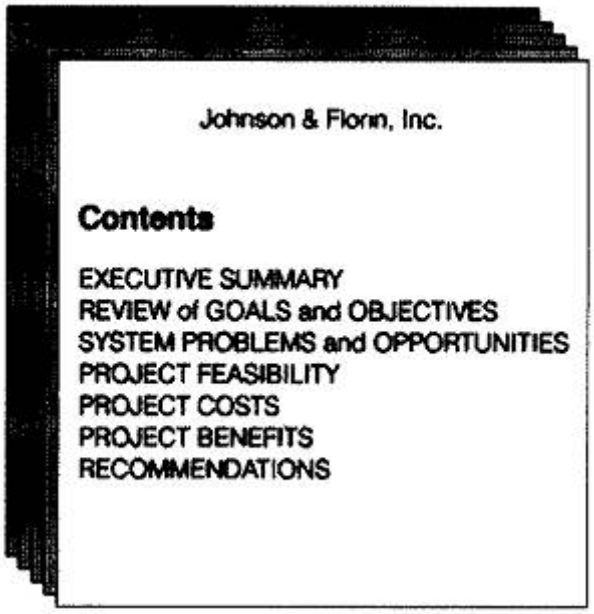
a and b above can be classified as_____ and_____ respectively

A. economic feasibility, legal feasibility
B. technical feasibility, operational feasibility
C. technical feasibility, operational feasibility
D. net present value, operational feasibility

Answer: B
Section: (none)

Explanation/Reference:

QUESTION 49
The table of contents for a is_____ illustrated in thefigure above



A. systems analysis report
B. systems design report
C. systems investigation report
D. request for proposal (RFP) document

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 50
Interviews and observations are both means of

A. data collection
B. data analysis
C. systems investigation
D. requirements analysis

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 51
Data and activity modelling are useful during_____ to show data flows and the relationships among various objects, associations and activities

A. object modelling
B. data analysis
C. information analysis
D. information modelling

Answer: B
Section: (none)

Explanation/Reference:

QUESTION 52
_____work on the premise that for every activity there must be some data transference, communication or flow that can be described as a data element

A. Data-flow diagrams (DFDs)
B. RADs
C. Entity relationship diagrams
D. Application flowcharts

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 53
Logical systems design refers to

A. development of software and hardware
B. how the tasks are accomplished
C. who will accomplish the tasks
D. what the system will do

Answer: D
Section: (none)

Explanation/Reference:

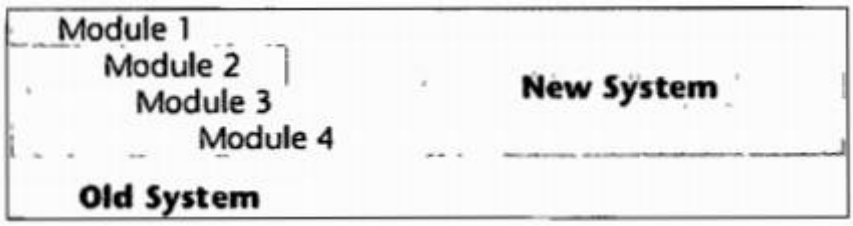
QUESTION 54
After receiving all the invited proposals, Gorgonza Cheese Corporation conducted a _____to determine which proposals would not meet their requirements

A. point evaluation
B. decision analysis
C. preliminary evaluation
D. final evaluation

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 55
The following diagram depicts



A. the phase-in approach
B. direct conversion
C. pilot running
D. parallel running

Answer: C
Section: (none)

Explanation/Reference:
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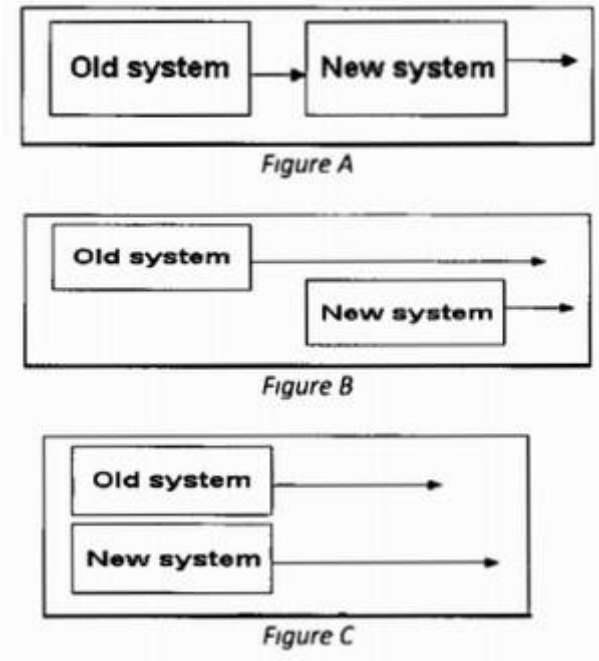
QUESTION 56
At Athos Corporation, Ethan decided that both the old system and the new one should be run at the same time When the new system was proven reliable, the old one should be disabled Ethan chose to use_____ running, which is depicted in figure_____



A. pilot, A
B. direct, B
C. parallel, C
D. plunge, B

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 57
A script kiddie is a

A. person who enjoys computer technology and spends time learning and using computer systems
B. computer savvy person who attempts to gain unauthorised or illegal access to computer systems
C. cracker with little technical savvy who downloads programmes called scripts, which automate the job of breaking into computers
D. an employee who works solo or in concert with outsiders to compromise corporate systems

Answer: C
Section: (none)

Explanation/Reference:

QUESTION 58
PC-cillin is a type of

A. logic bomb
B. virus
C. intrusion detection software
D. antivirus software

Answer: D
Section: (none)

Explanation/Reference:

QUESTION 59
Do people have a right to know about data stored about them and to decide what data is stored and used-

These issues can be broken down into four issues as depicted in the following table Name these FOUR issues

FAIRNESS ISSUES	DATABASE STORAGE	DATABASE USAGE
The right to know	I	II
The ability to decide	III	IV

A. knowledge, notice, control, consent
B. notice, control, consent, knowledge

C. control, knowledge, consent, notice
D. consent, knowledge, notice, control

Answer: A
Section: (none)

Explanation/Reference:

QUESTION 60
Proper placement of the computer keyboard, as shown m the accompanying figure, is an aspect of

A. ergonomics
B. biometrics
C. security
D. managed security service providers (MSSPs)

Answer: A
Section: (none)

Explanation/Reference: