Information technology for managers essay sample

Technology, Computer

1. Discuss the importance of Information as a resource.

Answer:

Information is a resource that should be managed like other resources (i. e. people, money, land and equipment). This implies applying resource management techniques, like planning, costing, budgeting and evaluating, to the information resources of the firm, and assigning the position for information resources management responsibilities to more senior levels within the organisation (Marchand & Horton 1986: 122). Eaton & Bawden (1991: 164) show that information can only be managed as a resource if the following three conditions are fulfilled: · The production of the information is undertaken to contribute to some purpose of the organisation. · The relationship of the information to the achievement of the stated purpose can be clearly shown. · The relationship can be empirically tested.

Data management is an important function of information management, it is critical that data must be accurate and relevant so that it may be processed into information, which is regarded as a valuable resource. 2. How is MIS used in Personnel Management?

Personnel management (PM) / Human resource management (HRM) is the strategic and approach to the management of an organization’s most valued asset and employees. Objective of PM : Providing suitable manpower in number and with ability, skills and knowledge as per demand of business organization from time to time

A personnel management information system is a set of procedures and applied technology that human resources workers use to track and organize

data about the employees within a business or organization. This information can include payroll records, tax documents, and records of assigned benefits such as health insurance. Other employee information is often kept in a system of this type for periodic performance evaluations. These records are usually resumes and copies of relevant industry certifications. This area of human resource management entails both the use of a computer software program and of routine practices for entering and updating relevant data.

Businesses with large numbers of employees often need a separate human resources (HR) department to keep accurate records of all of this information. Working with a personnel management information system requires both a good grasp of technology and an ability to retrieve needed data quickly. A software package designed for these human resource tasks typically consists of linked databases containing different sets of information. One database may contain records of issued paychecks linked to another database with information about withheld taxes, for instance. HR personnel are responsible for keeping this workforce information up to date and accurate.

3. What is the concept of Enterprise Resource Planning?

An ERP system is based on a common database and a modular software design. The common database can allow every department of a business to store and retrieve information in real-time. The information should be reliable, accessible, and easily shared. The modular software design should mean a business can select the modules they need, mix and match modules

from different vendors, and add new modules of their own to improve business performance. Ideally, the data for the various business functions are integrated. In practice the ERP system may comprise a set of discrete applications, each maintaining a discrete data store within one physical database.

4. Explain how is organization a system, where inputs are processed to get a desired output?

Processing takes place in the internal parts of the computer. It is the act of taking inputted data and converting it to something usable. What we typically see on the screen in today's computer world (known as what you see is what you get or WYSIWYG) is the result of our input being processed by some program so we can have usable output: an English paper, an edited photograph. Output, or processed information in a usable format, comes in many different forms: monitor or printer for visual work, a speaker for audio. Sometimes our output is short-term, such as printing a photo, and sometimes what we work on needs to be kept around for a while. That's where storage comes in.

5. What does the term Feasibility mean? What feasibility requirements concern the System Analyst?

All things are possible, but not all things are profitable." Simply stated, this quote addresses feasibility.

6. How do you create an expert system?

Step 1: Select a domain and a particular task

a) Choose a task that an expert can do well.

b) The performance of the task should be related to both breadth and depth ofknowledge. c) The facts and rules should be stable.

Step 2: Select the expert system shell for implementation

a) Choose the type of inference control required.

b) Choose the type of pattern-matching capability required.

c) Decide whether certainty factors are necessary

d) Start building a prototype system

Step 3: Acquire initial knowledge about the domain and the task a) Identify the knowledge experts

b) Select particular problems associated with each task

c) Obtain, record and cross-check factual knowledge from both reference material and experts d) Obtain and record task-related rules from the experts and confirm them as far as possible e) Prepare a set of test cases

Step 4: Encode the knowledge using the appropriate representation a) Factual knowledge

b) Inference knowledge

c) Control knowledge

Step 5: Execute and test the knowledge

a) Evaluate the test cases

b) Be alert for problems with consistency and completeness

Step 6: Refine the current knowledge and acquire additional knowledge a) Revise the rules as necessary

b) Modify any facts that need revision

c) Augment the system with information on additional domain tasks and test again d) Repeat as often as necessary

Step 7: Complete any necessary interface code

a) Demonstrate the system

b) Make the system user-friendly

Step 8: Document the expert system

a) Provide on-line and hard-copy documentation as necessary

b) Document the consultation portion especially well

c) Document the knowledge portion to the degree necessary

7. How is the information useful in system analysis? Explain.

System analysts assess the suitability of information systems in terms of their intended outcomes and liaise with end users, software vendors and programmers in order to achieve these outcomes. Although they may be familiar with a variety of programming languages, operating systems, and computer hardware platforms, they do not normally involve themselves in the actual hardware or software development. They may be responsible for developing cost analysis, design considerations, staff impact amelioration, and implementation timelines. So, the informations plays a major role in completing their task.

8. Write short notes on any three of the following

b. Operating System – An operating system (OS) is software that manages computer hardware and software resources and provides common services for computer programs.

c. Networking – networking is the practice of linking two or more computing devices together for the purpose of sharing data.

d. E Commerce -Electronic commerce, commonly known as E-commerce or eCommerce, is trading in products or services using computer networks, such as the Internet.

Assignment B

1. A management information system (MIS) is an organized combination of people, hardware, communication networks and data sources that collects, transforms and distributes information in an organization. An MIS helps decision making by providing timely, relevant and accurate information to managers. The physical components of an MIS include hardware, software, database, personnel and procedure s. Management information is an important input for efficient performance of various managerial functions at different organization levels. The information system facilitates decision making. Management functions include planning, controlling and decision making. Decision making is the core of management and aims at selec ting the best alternative to achieve an objective. The decisions may be strategi c, tactical or technical. Strategic decisions are characterized by uncertainty.

They are future oriented and relate directly to planning activity. Tactical deci sions cover both planning and controlling. Technical decisions pertain to implem entation of specific tasks through appropriate technology. Sales region analysis , cost analysis, annual budgeting, and relocation analysis are examples of decision-support systems and management information systems. There are 3 areas in the organization. They are strategic, managerial and operat ional control. Strategic decisions are characterized by uncertainty. The decisions to be made i n the area of strategic planning are future oriented and relate directly to plan ning activity. Here basically planning for future that is budgets, target market s, policies, objectives etc. is done. This is basically a top level where up-tothe minute information on the food items ordered and breaks out percentages show ing sales of each item versus total sales is provided.

The top level where strat egic planning is done compares the weekly sales totals versus food costs, allowi ng planning for tighter cost controls. Executive support systems function at the strategic level, support unstructured decision making, and use advanced graphic s and communications. Examples of executive support systems include sales trend forecasting, budget forecasting, operating plan development, budget forecasting, profit planning, and manpower planning. The decisions to be made in the area of managerial control are largely dependent upon the information available to the decision makers. It is basically a middle level where planning of menus is done and whenever an order is voided, the reas

ons for the void are keyed in which later helps in management decisions, especia lly if the voids are related to food or service.

The managerial control that is middle level also gets customer feedback and is responsible for customer satisfa ction. The decisions to be made in the area of operational control pertain to implement ation of specific tasks through appropriate technology. This is basically a lower level where the waiter takes the order and enters it online via one of the six terminals located in the restaurant dining room and the order is routed to a pr inter in the appropriate preparation area. The item s ordered list and the respect ive prices are automatically generated. The cooks send out of stock message when t he kitchen runs out of a food item, which is basically displayed on the dining r oom terminals when waiter tries to order that item. This basically gives the wai ters faster feedback, enabling them to give better service to the customers. Tra nsaction processing systems function at the operational level of the organizatio n. Examples of transaction processing systems include order tracking, order proc essing, machine control, plant scheduling, compensation, and securities trading.

The information required to make such decision must be such that it highlights t he trouble spots and shows the interconnections with the other functions. It mus t summarize all information relating to the span of control of the manager. The information required to make these decisions can be strategic, tactical or opera tional information. Advantages of an online computer system: Eliminates carbon copies Waiters handwriting issues Out-of-stock message Faster feedback, helps waiters to service the customers

Advantages to management: Sales figures and percentages item-wise Helps in planning the menu Cost accounting details

2. If the management provides sufficient incentive for efficiency and results to their customers, it would make the system a more complete MIS and so the MIS sh ould support this culture by providing such information which will aid the promo tion of efficiency in the management services and operational system. It is also necessary to study the keys to successful Executive Information System (EIS) de velopment and operation. Decision support systems would also make the system a c omplete MIS as it constitutes a class of computer-based information systems incl uding knowledge-based systems that support decision-making activities. DSSs serv e the management level of the organization and help to take decisions, which may be rapidly changing and not easily specified in advance.

Improving personal efficiency, expediting problem solving (speed up the progress of problems solving in an organization), facilitating interpersonal communicati on, promoting learning and training, increasing organizational control, generati ng new evidence in support of a decision, creating a competitive advantage over competition, encouraging exploration and discovery on the part of the decision m aker, revealing new approaches to thinking about the problem space and helping a utomate the managerial processes would make the system a complete MIS rather tha n just doing transaction processing. 3. The management system should be an open system and MIS should be so designed that it highlights the critical business, operational, technological and enviro nmental changes to the concerned

level in the management, so that the action can be taken to correct the situation. To make the system a success, knowledge will have to be formalized so that machines worldwide have a shared and common under standing of the information provided.

The systems developed will have to be able to handle enormous amounts of information very fast. An organization operates in an ever-increasing competitive, global environment. Operating in a global environment requires an organization to focus on the effic ient execution of its processes, customer service, and speed to market. To accom plish these goals, the organization must exchange valuable information across di fferent functions, levels, and business units. By making the system more formal, the organization can more efficiently exchange information among its functional areas, business units, suppliers, and customers. As the transactions are taking place every day, the system stores all the data w hich can be used later on when the hotel is in need of some financial help from financial institutes or banks. As the inventory is always entered into the syste m, any frauds can be easily taken care of and if anything goes missing then it c an be detected through the system.

Assignment C

Answer all questions.

Tick mark the most appropriate answers:-

1. In digital computer, data is represented in –

a) Decimal Form

b) Binary form (ans)

c) Octal form

d) Hexadecimal form

2. Add, subtract, multiple and logic operations are performed by – a) Registers

b) Control unit

c) ALU (ans)

d) None of these

3. The data processing consists –

a) Capturing the input data

b) Manipulating the data

c) Handling the output

d) All of the above (ans)

4. A plotter is –

a) An impact device to produce good quality graphics

b) An output device to produce drawings and graphics (ans) c) A fast output device using camera lenses

d) None of the above

5. Which of the following is/are GUI based operating system? a) MS DOS

b) UNIX

c) Window 3. 1 (ans)

d) Windows Vista (ans)

6. The largest unit of storage is –

a) Terabyte

b) Petabyte

c) Exabyte

d) Zettabyte (ans)

7. Machine language programs are written using –

a) 0’s and 1’s (ans)

b) Mnemonic codes

c) English like words

d) None of the above

8. A file is corrected immediately after the input of a transaction. This is an example of –

a) Sorting

b) Batching

c) On line updating (ans)

d) Off line updating

9. A logic gate is an electronic circuit which –

a) Makes logic decisions (ans)

b) Allows electron flow only is our direction

c) Works on binary algebra

d) Alternates between 0 & 1 values

10. An organized collection of logically relate data is known as – a) Data

b) Meta data

c) Database (ans)

d) Data versus information

11. A JPG is –

a) A Jumper Programmed Graphic

b) A format for an image file (ANS)

c) A type of hard disk

d) A unit of measure for memory

12. Another word for “ Graphics for a word processor”?

a) Peripheral

b) Clipart (ans)

c) Highlight

d) Execute

13. The name of E-computer programs usually developed by government agencies that can be freely copied and used –

a) Public domain software

b) Freeware (ans)

c) Shareware

d) Pirated software

14. Some software packages attempt to encode the knowledge and decision rules of human specialists in order to use them for making their own decisions. This software is referred as –

a) Artificial intelligence packages (ans)

b) Expert systems

c) Knowledge based systems

d) None of these

15. Following is not a responsibility of DBMS software –

a) Creating physical and logical designs

b) Removing flagged records for deleting

c) Creating and maintaining the data dictionary

d) Monitoring performance (ans)

16. On which of the following sites can you set up your e-mail account – a) www. linux. org

b) www. gre. org

c) www. syvum. org

d) www. gmail. com (ans)

17. What is a URL?

a) A computer software program

b) A type of UFO

c) The address of a document or ‘ page’ on the world wide web (ans) d) An acronym for Uniform Resource learning

18. What is the difference between Internet and an intranet? a) One is public, the other is private (ans)

b) One is safer than the other

c) One can be monitor, the other can’t

d) None of the above

19. Decision making is which activity

a) Intuitive

b) Cognitive (ans)

c) Systematic

d) Analytic

20. Decision support system are used for –

a) Line managers

b) Top level managers

c) Middle level managers

d) System user (ans)

21. A Management Information System (MIS) is one which –

a) Is required by all managers of an organization (ans)

b) Processes data to yield information of value in tactical management c)

Provides operational information

d) Allows better management of organization

22. A set of programs that handle firms database responsibilities is called –

a) DBMS (Database Management System)

b) Database processing System

c) Data Management System

d) All of the above (ans)

23. To access information from a database, you need –

a) EIS

b) DBMS (ans)

c) MIS

d) None of the above

24. Newspaper, magazine, radio, television are example of a) Storing information

b) Retrieving information

c) Communication information (ans)

d) Acquiring information

25. The architecture of the MIS plan provides:

a) A way to handle the system or subsystem by way of simplification on, coupling and decoupling of subsystems.

b) For preparing the schedule of the system in the overall information requirement

c) An online information on the stocks markets and the accounts balance. d) None of these. (ans)

26. Management science also known as mathematics.

a) Operations research

b) Management accounting (ans)

c) Exchange commission

d) System theory

27. EIS should offer the capability to into the data.

a) Drill down

b) Drill Up

c) Drill diagonal

d) All of the above

28. The business re-engineering requires a major change in the a) Machineb) Mindset (ans)

c) Material

d) Infrastructure

29. Which of the following system helps you with making a decision about a non structured problem?

a) A. I.

b) Neutral Network (ans)

c) Genetic Algorithms

d) D. S. S.

30. Inventory is also referred to as

a) Stock (ans)

b) Warehouse Capacity

c) Material

d) Material in hand

31. Are knowledge based system to which present rules are applied to solve a particular problem .

a) ES

b) AI

c) KBS (ans)

d) Base rule

32. A system Theory of organization sees the firm as a

a) Network of resource flow

b) System transforming inputs into output (ans)

c) Physical System managed by a manager using a conceptual system d) All of the above

33. decision are those decision for which policy standards or guidelines are already established

a) Programmable

b) Control

c) Predictive reports (ans)

d) Relevant

34. Which of the following is not an important principle for evaluating the raw data for decision making

a) Selection

b) Pattern

c) Average

d) Over View

35. A DBA is a

a) A person (ans)

b) A Computer device

c) A Communication technique

d) All of the above

36. A constraint that does not affect the feasible solution region is known as

a) Redundant Constraint (ans)

b) Unbounded solution

c) Slack variable

d) Surplus variable

37. The product structure file is also called as

a) Item master file

b) Bill of materials file (ans)

c) Operations file

d) All of the above

38. Computer support to the manager has been in

a) Alternative identification

b) Alternative selection

c) Problem identification

d) Alternative evaluation (ans)

39. A central purpose of most decision support systems is

a) To build a model of the decision making problem (ans)

b) To design a database management system

c) To build an expert system

d) None of the above.

40. The four major corporate resources are money, material, information and

a) People (ans)

b) Icons

c) Information System

d) None of the above