1. Briefly explain about Data?

Data is streams of raw facts representing events occurring in organizations or the physical environment before they have been organized and arranged into a form that people can understand and use.

2. What is Information?

Information we mean data that have been shaped into a form that is meaningful and useful to human beings.

3. What are the difference between Data and Information ?

DATA	INFORMATION
Raw facts	Final result
No context	With context
useless	Useable
Before processed	Processed data
No value-added	Value-added to data
Just numbers and text etc…. without meaning	Just numbers and text etc…. with meaning

4. What is a system?

A system is a collection of elements or components that are organized for a common purpose.

5. What are the type of a system?

- Nature system.
  - ❖ Solar system.
  - ❖ Blood circulation system.
- Man made system.
  - ❖ Bank system, school system……..
  - ❖ Information system/ICT system.

6. What are the elements of a system?

- Components
- Interrelated components
- Boundary
- Purpose
- Environment
- Interface
- Constraints
- Input
- Output

7. What is an information system?

An information system is a set of interrelated components that collect (or retrieve), process, store, and distribute information to support decision making and control in an organization.

8. What are Additional outcome in information system?

- Managers and workers analyze problems, visualize complex subjects.
- Create new products.

9. What are the functions of an information system?

- Input
- Processing
- Output
- Feedback

10. What is computer based system?

It is a data processing system into a high quality information and can be used as tools that support decision making coordination and control as well as visualization and analysis.

11. What are the Dimensions of information systems?

- Organization
- Management
- Information technology

12. Briefly explain the following terms?

❖ Organization
  :- An organization group of people who have a common goal and work together.
  :- The key elements of an organization are its people, structure, business processes, politics and culture.

❖ Management
  :- Information technology can play a powerful role in helping managers to.
  :- Managers set the organizational strategy for responding to those challenges.

❖ Technology
  :- Computer hardware, data management technology, computer software, networking and telecommunications technology.

13. What are the organizational peoples?

- Senior management
- Middle management
- Operational management
- Knowledge workers
- Data workers
- Production or service workers

14. Briefly explain about Business process?

    Business process are the collection of activities required to produce a product or service.

15. What are the quality dimension of information?

- Accuracy
- Integrity
- Consistency
- Completeness
- Validity
- Timeliness
- Accessibility

16. What are the three main categories of information?

- Operational-level system
- Management-level system
- Strategic-level system

1. What information system will be able to do?

- Increasing market share.
- Becoming the high-quality or low-cost producer.
- Developing new products.
- Increasing employee productivity.

2. What is business processes?

   Business processes are the collection of activities required to produce a product or service.

3. How do information system improve business process?

   Information systems automate many steps in business process that were formerly performed manually.

4. What are the functional areas of business processes?

- Manufacturing and production
- Sales and marketing
- Finance and accounting
- Human resources

5. What are the type of information systems?

- Operational-level systems
- Management-level systems
- Strategic-level systems

6. What are the four major types of systems in an organization?

- TPS-Transaction Processing Systems
- MIS-Management Information Systems
- DSS-Decision Support Systems
- ESS-Executive Support Systems

7. What is the Payroll system?

   A payroll system keeps track of money paid to employees.

8. What are the included of the employee timesheet?

- Employee's name
- Social security number
- Number of hours per week

9. What is the business intelligence?

   Data and software tools for organizing and analyzing data.

10. what are the business intelligence systems?

   - Management information systems(MIS)
   - Decision support systems(DSS)
   - Executive support systems(ESS)

11. Briefly explain the following terms?

   ❖ MIS-Management information systems
      :- summarize and report on the company's basic operations using data supplied by transaction processing systems.
      :-serving middle management.
      :-inflexible
      :-have little analytical capability.

   ❖ DSS-Decision support systems
      :-DSS use internal information from TPS(Transaction processing systems) and MIS(Management information systems).
      :-serve middle management.
      :-support non-routine decision making.

   ❖ ESS-Executive support systems
      :-support senior management.
      :-track activities of competitors.
      :-spot problems.
      :-identify opportunities.

1.What are the strategic business objectives of information system?

- Increasing marketing share
- Becoming the highlight-quality or low-cost producer
- Developing new products
- Increasing employee productivity

2. What are the strategic business objectives?

- Operational excellence
- New products, services, and business models
- Customer and supplier intimacy
- Improved decision making
- Competitive advantage
- Survival

3. How information systems and technologies support to operational excellence?

- Managers for achieving higher level of efficiency and productivity in business operations.
- Changes in business practices and management behavior.

4. Which are the major enabling tool for firms to create new products and services?

- Information systems and technologies are the major enabling tool

5. What is business models?

- It describes how a company produces, delivers and sells a product or service to create wealth

6. What are the competitive advantages of strategic business objectives?

- When firms achieve one or more of these business objectives -operational excellence

- New products, services, and business models Customer and supplier intimacy

7. What is the sociotechnical systems?

- Information systems are sociotechnical systems

8. What you will find inside of sociotechnical system?

- Find people, software, hardware, the organization, and any number of other systems functioning together as a whole

9. What are the non-functional element of system?

- People
- Processes
- Regulations
- Goals
- Culture

10. What are the technical components of system?

- Computers
- Software
- Infrastructure

11. What are the layers of sociotechnical systems?

- Organizational layer
- Social layer
- Business process layer
- Equipment layer
- Operating system layer
- Data management and communications layer
- Application layer

12. What are the benefits for organization?

- Easy management of sophisticated human challenges
- Self-regulation and error detection
- Trust and responsibility

13. What are the disadvantages for organization?

- Limited systems understanding and blind spots
- Wrong or inaccurate information
- Human-machine challenges
- Complexity that outgrows organizational design
- Less control

14. What is the enterprise application ? and that advantages

- because of the organizational growth and acquisitions of smaller firms system become a collection of system implement enterprise application to getting them as a single system
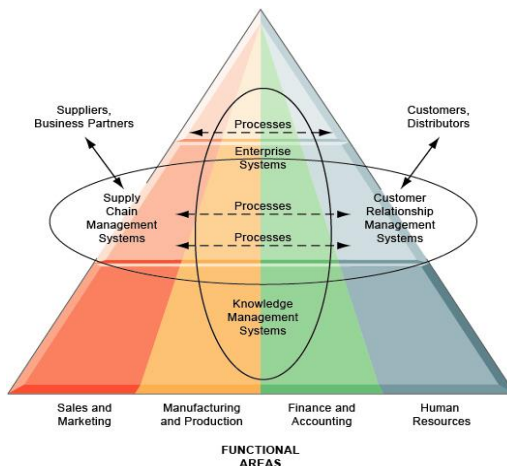
advantages

- businesses become more flexible, productive and coordinating
- process become more closely
- Efficient management

15. What are the four major enterprise applications ?

- enterprise systems
- supply chain management systems
- customer relationship management systems
- knowledge management systems

16. Draw and note the enterprise application architecture?

17. what is the enterprise system ?

● enterprise systems to integrate business processes in manufacturing and production finance and accounting sales and marketing and human resource into a single software system

18. how enterprise system is work ?

● Enterprise systems are large-scale software packages that are able to track and control all of the complex operations of a business.

19. give some example for ERP ?

● Warehouse

● Factory

● Accounting department

● Customer service representatives

Popular ERP Systems

● Microsoft Dynamics 365

● SYSPRO ERP

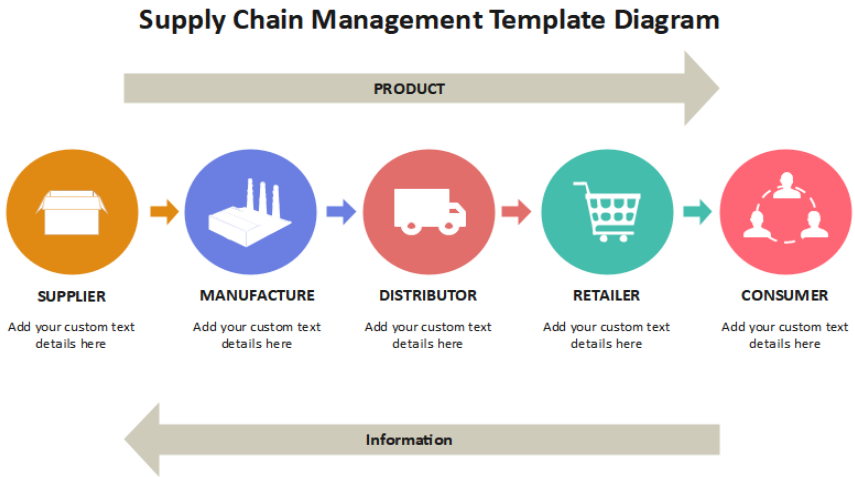● Odoo   ● Oracle NetSuite ERP   ● Brahmin Solutions

ERP diagram

20. what is the supply chain management system and give some example ?

● Supply chain management is the practice of coordinating the various activities necessary to produce and deliver goods and services to a business's customers. Example designing, farming, manufacturing, packaging, or transporting.

21. draw the supply chain management diagram

Supply Chain Management Template Diagram

PRODUCT

SUPPLIER	MANUFACTURE	DISTRIBUTOR	RETAILER	CONSUMER
Add your custom text details here	Add your custom text details here	Add your custom text details here	Add your custom text details here	Add your custom text details here

Information

22. supply chain management system advantages ?

Advantages

● increase firm profitability (lowering the cost of moving and making products)

● enabling managers to make better decisions

● About How to organize and schedule sourcing,production and distribution

Disadvantages

● Loss of control

● Ima pact on your warehouse

23. what is the customer relation ship management system ?

● CRM systems to help manage their relationship with their customers

24. customer relationship management system advantages ?

- Increased Sales. ...
- Analytics. ...
- Higher Productivity. ...
- Cultivating New Leads. ...
- Better Marketing. ...
- Increased Profitability

25. What is the CRM ?

- CRM capture and integrate customer data from all over the organization
- consolidate the data, analyze the data and then distribute the results to various system and customer touch points across the Enterprise

26. How to create the touch point ?

- A touch point is a method of interaction with the customer. So we are creating touch points in ,

- ✓ telephone
- ✓ email
- ✓ customer service desk
- ✓ conventional mail
- ✓ Facebook
- ✓ Twitter
- ✓ website
- ✓ wireless device or retail store

27. km how to work in organisation site ?

- knowledge management systems enable organization to better manage process for capturing and applying knowledge and expertise

28. there are three major types of knowledge management systems so what are these ?

- enterprise wide knowledge management systems

- knowledge work systems

- intelligent techniques

29. what is the general purpose of enterprise wide knowledge management systems ?

- general purpose from white efforts to collect store distribute and applied digital content and knowledge

30. what is the kws and how is it worked ?

- specialised systems build for engineers scientist and other knowledge workers charged with discovering and creating new knowledge for a company

31. give some examples of kws and describe that ?

- cad systems
- virtual reality systems for simulation and modelling
- financial workstations

CAD SYSTEMS

- Computer aided design automates the creations and revisions of designs using computers and sophisticated graphics software

VIRTUAL REALITY SYSTEMS FOR SIMULATION AND MODELING

- virtual reality systems have visualization rendering and simulation capabilities that go far beyond those of conventional cad systems

FINANCIAL WORKSTATION

- the financial industry is using specialized investment workstation Bloomberg terminal is to leverage the knowledge and time of it broker traders and Portfolio managers

32. AR is a new generation Technology so please describe that ?

● related Technology for engine setting visualization

● AR provide alive direct or indirect view of a physical Real world environment whose elements are augmented by virtual computer-generated imagery

● the virtual images merged with real view to create the augmented display

33. what is the VRML technology ?

● VRML is a set of specification for interactive 3D modelling on the world wide web that can organize multiple media types,including animations,images and audio to put users in a simulated Real world environment

34. what is the difference between AR and VR ?

35. what is the intelligent techniques ?

● Intelligent Techniques. Intelligence techniques may be used for: Capturing individual and collective knowledge and extending a knowledge base, using artificial intelligence and database technologies

1. What are the four generic strategies?

- Low-cost leadership
- Product differentiation
- Focus on market niche
- Strengthening customer and supplier intimacy

2. How can you establish a competitive advantage in cost?

- High asset utilization
- Low direct and indirect operating costs
- Value chain control

3. What is the Niche market?

A niche market is the subset of the market on which a specific product is focused.

4. What are the market niche defines the product feature aimed at satisfying?

- Price
- Demographics
- Level of quality
- Phycographics
- Geographics

5. What is strategic planning process?

The method used by organizations to develop plans to achieve overall long-term goals.

6. Write the product differentiation?

Use information systems to enable new products and services or greatly change the customer convenience in using your existing products and services.

7. How to information systems help organizations analyze?

- Customer buying patterns
- Tastes
- Preferences closely

8. What is the advantage of the strengthen customer and supplier intimacy?

- It create strong linkage between the company and their suppliers and customers.
- Increase loyalty to a business.
- Customer and supplier will feel more valued by the company.

9. What are the 05 steps in strategic planning process?

- Step1:- Clarify your strategic position SWOT analysis of Apple.
  - S - STRENGTH
  - W - WEAKNESS
  - O - OPPORTUNITIES
  - T - THREATS
- Step2:- Prioritize your objectives.
- Step3:- Formulate a strategy.
- Step4:- Implement and manage the strategy.
- Step5:- Monitor and evaluate strategy.

10. What are the competitive force?

- Substitute products or services
- Customers' bargaining power
- Suppliers' bargaining power
- Threat of new entrants
- Positioning and rivalry among exiting competitors

1. Briefly explain an effective information system?

An effective information system provides users with accurate, timely and relevant information accurate information free of errors information is timely when it is available to decision makers when it is needed. Information is relevant when it is useful and appropriate for the types of work and decision the require it.

2. What are the problems with traditional file?

- Data redundancy and inconsistency
- Program-data dependence
- Inflexibility
- Poor data security
- An inability to share data among applications

3. Explain traditional file problems?

❖ Data redundancy and inconsistency.
  ➢ Data redundancy :- presence of duplicate data in multiple data files so that the same data are stored in more than one place or location.
  ➢ Inconsistency :- data redundancy wastes storage resources and also leads to data inconsistency where the same attribute may have different values.

❖ Program data dependence :- program data dependence refers to the coupling of data stored in files and the specific programs required to update and maintain those files such that changes in programs require changes to data.

❖ Lack of flexibility :- a traditional file system can deliver routine scheduled reports after extensive programming efforts, but it cannot deliver ad hoc reports or respond to unanticipated information requirement in a timely fashion.

❖ Poor security :- because there is little control or management of data, access to and dissemination of information may be out of control.

4. What is DBMS (Data base management system)?

A database management system(DBMS) is a software designed to define, manipulate retrieve and manage data in a centralized data base.

5. How a DBMS solves the problems of the traditional file environment?

- A DBMS reduces data redundancy and inconsistency by minimizing isolated files in which the same data are repeated.
- Even if the organization maintains some redundant data, using a DBMS eliminates data inconsistency because the DBMS can help the organization ensure that every occurrence of redundant data has the same values.

6. Briefly explain the following terms?

- ❖ Tuples :- the actual information about a single supplier that resides in a table is called a row. Rows are commonly referred to as records, or in very technical terms, as **tuples**.

- ❖ Key field :- the field for Supplier_Number in the SUPPLIER table uniquely identifies each record so that record can be retrieved, updated, or sorted.it is called a **key field.**

- ❖ Primary key :- each table in a relational database has one field that is designated as its primary key. This key field is the unique identifier for all the information in any row of the table and this **primary key** cannot be duplicated.

- ❖ Foreign key :- an attribute in a relation of a database that serves as the primary key of another relation in the same database.

7. What is Domain?

Domain refers to all the values which a data element may contain.

8. What capabilities of DBMS?

A DBMS includes capabilities and tools for organizing, managing, data accessing the data in the database.

9. Access data dictionary features?

- Field size
- Format
- Decimal places
- Input mask
- Caption
- Default value
- Validation rule
- Validation text
- Required
- Indexed
- Text align

10. Explain the entity relationship diagram?

- The diagram illustrates the relationship between the entities SUPPLER, PART, LINE, _ITEM, and ORDER.
- The boxes represent entities.
- The lines connecting the boxes represent relationships.
- A line connecting two entities that ends with a crow's foot topped by a short mark indicates a one-to-many relationship.

11. What is data definition capability?

DBMS have a data definition capability to specify the structure of the content of the database. It would be used to create database tables and to define the characteristics of the fields in each table.

12. Briefly explain the data manipulation?

Most DBMS have a specialized language called a data manipulation language that is used to add, change delete and retrieve the data in the database.

13. What is database?

A database is information that is set up for easy access, management and updating.

14. Definition of entity and attribute in database concepts?

- Entity :- an entity is a person, place thing or event on which we store and maintain information.
- Attribute :- each characteristic or quality describing a particular entity is called an attribute.

1.What is the cloud database?

A cloud database is a database build to run in a public or hybrid cloud environment to help organize, store, and manage data within an organization.

2. What kind of unstructured data's store and manage in non-relational cloud database?

Email and mobile message text, documents, surveys, rich media files, and sensor data.

3. Explain the terms of "Data ware house"?

A data ware house is a database that stores current and historical data of potential interest to decision makers throughout the company.

4. What is data marts?

A data marts is a subset of a data warehouse in which a summarized or highly focused portion of the organization's data is placed in a separate database for a specific population of users.

5. What is a Hadoop? Give one example

Hadoop is an open source software framework managed by the Apache software foundation that enables distributed parallel processing of huge amounts of data across inexpensive computers.

e.g.:-Apache hadoop

6. Which device used in 'in-memory computing'?

RAM (random access memory)

7. What are advantage of hadoop?

It breaks a big data problem down into sub problem, distributes them among up to thousands of inexpensive computer processing nodes, and then combines the result into a smaller data set that is easier to analyze.

8. What is data mining? What is the usage of it?

- Data mining is a process of finding potentially useful patterns from huge data sets.
- It used to guide decision making and forecast the effect.

9. What are types of information obtainable from data mining?

- Associations
- Sequences
- Classification
- Clusters
- Forecasts

10. Explain the term of 'NoSQL database'?

NoSQL database are non-tabular database and store data differently than relational tables.

11. What are the types of NoSQL database?

- Oracle NoSQL database
- MongoDB, Redis, Cassandra, Hbase, and Cloud Bigtable
- Amazon's SimpleDB

12. What are the database engines used in Amazon relational database services?

- My SQL
- SQL Server
- Oracle database
- Postgre SQL
- Maria SQL
- Amazon autora DB

1.What are the various degrees of organizational change promoted by information technology?

- Automation
- Rationalization
- Business process redesign
- Paradigm shifts

2. What is system development?

System development is a structured kind of problem solved with distinct activities.

3. What kind of activities consist in system development?

- System analysis
- System design
- Programming
- Testing
- Conversion
- Production and maintenance

4. Explain the term of system design?

Systems design show how the system will fulfill system objectives. The design of an information system is the overall plan or model for that system.

5. What are the steps which were consist in system analysis?

- Defining the problem
- Identifying its causes
- Specifying the solution
- Identifying the information requirements

6. What are the three types of activities in testing?

- Unit testing
- System testing
- Acceptance testing

7.Briefly explain what's unit testing, system testing and acceptance testing?

- ❖ Unit testing :- consists of testing each program separately in the system.
- ❖ System testing :- tests the functioning of the information system as a whole.
- ❖ Acceptance testing :- provides the final certification that the system is ready to be used in a production setting.

8. Give four main conversion strategies?

- The parallel strategy
- The direct cutover strategy
- The pilot study strategy
- The phased approach strategy

9. What are alternative methods for building information systems?

- The traditional systems life cycle
- Prototyping
- Application software packages
- End- user development
- Outsourcing

10. What are the new approaches for system building in the digital firm era?

- Rapid application development (RAD)
- Agile development

11. What is prototyping?

The prototyping is a working version of an information system or part of the system, but it is meant to be only a preliminary model.

12. What is out sourcing?

A business practice in which a company hires a third, party to perform tasks, handle operations or provide services for the company.

1.How do viruses and worms spread from the internet?

- Files or downloaded software
- Files attached to email transmissions
- Compromised email messages
- Instant messaging

2. How hacker's hacked computers?

Hackers gain unauthorized access by finding weakness in the security protections websites and computer systems employ, often taking advantage of various features of the internet that make it an open system and easy to use.

3. What is spyware?

Spyware is loosely defined as malicious software designed to enter your computer device, gather data about you, and forward it to a third-party without your consent.

4. Give some examples of firewall screening technologies?

- Static packet filtering
- Stateful inspection
- Network address translation
- Application proxy filtering

5. Define DOS and DDOS?

- ❖ DOS :- Denial of service
- ❖ DDOS :- Distributed denial of service

6. What is phishing?

One increasingly popular tactic is a form a spoofing called phishing

7. What is the Malicious software?

Malicious software programs are referred to as malware and include a variety of threats such as computer viruses, worms, and Trojan horses.

8. How to Trojan horse computer?

It is often a way for viruses or other malicious code to be introduced in to a computer system.

9. What is the meaning of firewall?

Without, protection against malware and intruders, connecting to the internet would be very dangerous.

10. What are the security policy consist of statement?

- Ranking information risks
- Identifying acceptable security goals
- Identifying the mechanisms for achieving these goals

11. What are the three kinds that include in application controls?

- Input controls
- Processing controls
- Output controls

12. Give some leading UTM (unified threat management) vendors?

- Fortinent
- Sophos
- Check point

13. How can operate the worms?

Worms can operate on their own without attaching to other computer program files and rely less on human behavior to spread from computer to computer.

14. How to spread worms and viruses in the internet?

- From files of downloaded software
- From files attached to e-mail transmissions
- From compromised e-mail messages
- Online ads
- Instant messaging

15. How do warms work computer?

Which are independent computer programs that copy themselves from one computer to other computer over a net work.

1.How are information system transforming business?

There are three interrelated change in the technology area:

- The emerging mobile digital platform
- The growing business use of "big data,"
- The growth in "cloud computing,"

2. What are the benefits of emerging mobile digital platform?

- Coordinate work
- Communicate with employees
- Provide information for decision making

3. Here are some examples of mobile digital plat forms?

- I phone
- Windows mobile
- Black berry

4. What are the benefits of wearable devices?

- Collect the data of user's personal health and exercise
- Increases productivity
- Supports save working practices

5. Here are some examples of wearable devices?

- Smart watches
- Google glasses
- Eye trackers
- Apple glasses
- Bar code reader
- Face detection

6. What is the Big data?

Big data is a collection of data that is huge in volume, yet growing exponentially with time. It is a data with so large size and complexity that none of traditional data management tools can store it or process it efficiently.

7. What is the growing business use of big data?

- Improve operations
- Provide better customer service
- Create personalized marketing campaigns and take other action that
- Increase revue and profits

8. What are the advantages of big data?

- Businesses can utilize outside intelligence while taking decisions
- Improved customer service
- Early identification of risk to the product/services
- Better operational efficiency

9. What are the "cloud computing" advantages ?

- Cost
- Speed
- Global scale
- Productivity
- Performance
- Reliability
- Security

10. What are the type of cloud services?

- IaaS (infrastructure as a service)
- PaaS (platform as a service)
- Serverless computing
- SaaS (software as a service)

11. Different types of cloud computing deployment models are:

- Public cloud
- Private cloud
- Hybrid cloud
- Community cloud
- Multi-cloud