

MIS MATERIAL

Module 2

Types of information system

☐ Organizational information system

- Transaction processing system
- Management information system
- Executive information system
- Decision support system
- AI and expert system
- Office automation system

Q1. What is TPS..... organisational information system

Q2. What is MIS..... organisational information system

Q3. What is EIS.... organisational information system

Q4. Which are different organisational information systems..... TPS MIS, EIS, DSS, AI, EXPERT SYSTEM, OAS

☐ **TPS**

It is a system that records company transactions wherein a transaction is an exchange between any two or more more business units

☐ Types of transaction

Internal transactions

External transactions

☐ Features of TPS

Rapid response

Reliability

Inflexibility

Controlled processing

☐ Functions of TPS

Data entry

Transaction processing

Database maintenance

Document and report generation

Inquiry processing

☐ Advantages

Handling operations

Good data-placement

Quick processing

Real time back up

High normalization

Archiving historical data

☐ Disadvantages:

Data redundancy,

Too much consolidation

,Security problems

☐ Application

Online bill payment, Credit card authorizations, ATM, Self Checkout stations, Trading stocks over internet, Other forms of electronic commerce

Q5. Which system records company transactions....TPS

Q6. TPS records what kind of transactions.....company transaction

Q7. What is exchange between two or more business units.... transaction

Q8. State types of transaction.... internal and external transactions

Q9. Rapid response reliability in flexibility and controlled processing isof TPS..... features

Q10. Feature of a TPS system are..... Rapid response, reliability ,inflexibility ,controlled processing

Q11. What are the functions of TPS..... data entry transaction processing database management document and report generation in query processing

Q12. Which is the first step in transaction processing cycle.... data entry

Q13. Which is the second step in transaction processing cycle.... batch processing, real time processing

Q14. What should TPS update? organisations database

Q15. What is the third step in transaction processing cycle..... database management

Q16. What is generated by TPS..... documents and reports
Q17. documents and reports are generated by.....TPS
Q18. Step in TPS processing is..... inquiry processing
Q19. What helps business buy easily selling the goods and services to its customers..... TPS
Q20. What can access different patterns which are concurrently added by users...TPS
Q21. Which system provides faster processing and increase is system speed...TPS

Q22. Which system avoids or remove redundant information....TPS
Q23. Which system moves unused data into another data base...TPS
Q24. What are advantages of TPS..... handling operations good data-placement quick processing real time backup high normalisation archiving historical data
Q25. Disadvantages of TPS.... data redundancy too much consolidation security problems
Q26. Integrity problems and temporal integrity problems are..... disadvantages of TPS
Q27. Too much consolidation is..... disadvantage of TPS
Q28. What are the applications of TPS..... online bill payments, credit card authorisations, ATM, self check out stations, trading stocks over the internet, E-commerce

- **Management information system**

MIS is a system which makes available the right information, to the right person, at the right place ,at the right time, in the right form and at the right cost.

Descriptive what is

Diagnostic..... what is wrong

Predictive..... what if

Prescriptive.....what should be done

❓ Management information system is an integrated, user machine system for providing information to support operation, management and decision making functions in an organisation . The system utilizes computer hardware and software, manual procedures ,models for analysis, planning, control and decision making and a database

❓ Characteristic:

Integrate system

Subsystem concept

Provides relevant info to mgt

Flexible

Enhance productivity

Coordinated system

Feedback system

Mgt. Oriented

Mgt. Directed

Common database

DDP

Computerized system

Transforms data into info

❓ Need

Efficiently storing and managing data

Fast and accurate delivery of info

Processing data and developing info from it

Information availability for prod and inventory

Info about current economic status

Faster implementation of results

Smooth flow of data within various level of org

Info made available for planning, organising and monitoring business process.

❓ Objectives

Data capturing

Processing of data

Storage of information

Retrieval of information
Dissemination of information

☐ Nature

Report orientation
Action oriented
Exception oriented
Database orientation
End-user orientation
Academic discipline orientation

☐ Role

Minimize risk in decision making
Process data and generate information
Information used for efficient decision making
Research and Analysis
Know financial status of business
Generate corporate business report
HR info
Production info
Sales department info

☐ Functions of MIS

Collect data
Store and process data
Present info to managers

☐ Structure

- Based on management activity
 - Strategic planning
 - Tactical planning
 - Operational planning and control
 - Transaction processing
- Based on org. function
 - Sales and marketing
 - Production
 - Logistics

Personnel
Finance and acc
Informatiessing Top management

☐ Advantages

Facilitates planning
Minimises info overload
Encourages decentralization
Brings coordination
Makes control easier

☐ Disadvantages

Highly sensitive
Constant monitoring
Budgeting is difficult
Quality of outputs depend on inputs
Inflexible to update
Effectiveness decrease due to changes in top mgt
Considers only qualitative factors

☐ Applications

Strategy support
Data processing

Q28. What is MIS..... management information system

Q29. Which information allows managers to plan and control different operations in the organisation.....MIS

Q30. Descriptive Diagnostic predictive and prescriptive information is provided by....MIS

Q31. Which are three components of MIS..... management, information, system

Q32. What refers to practice of integrating computer systems hardware and software used to meet organisations strategic goals..... information systems

Q33. Mis is used for what.... collecting processing storing and disseminating data in form of information

Q34. Give an example of MIS.... processing transactions through website of an organisation

Q35. Integrated system comprising of subsystems is what of MIS.... characteristic

Q36. Sub system concept is what of MIS.... characteristic

Q37. Provides relevant information to management is what of MIS.... characteristic

Q38. Flexibility Is what of MIS.... characteristic

Q39. Productivity Is what of MIS.... characteristic

Q40. Coordinated systems Is what of MIS.... characteristic

Q41 Feedback. Systems Is what of MIS.... characteristic

Q 42. Management oriented Is what of MIS.... characteristic

Q43. Management directed Is what of MIS.... characteristic

Q44. Common database Is what of MIS.... characteristic

Q45.DDP Is what of MIS.... characteristic

Q46. What are the objectives of MIS.... data capturing, processing of data,storage of information, retrieval of information and dissemination of information.

Q47. What is collecting storing processing of data and presenting information to managers..... functions of MIS

Q48. Structure of mis is based on..... management activity and organisational functions

Q49. Who manages long-range planning..... strategic planning team

Q50. Strategic planning team manages what.... long range planning

Q51. Which range of planning is controlling and tactical planning.... medium planning range

Q52. Short term decisions are taken by whom..... middle and junior management

Q53. The subsystem of MIS..... sales and marketing subsystem

- Q54.The subsystem of MIS..... production subsystem
- Q55. The subsystem of MIS..... logistic subsystem
- Q.56. The subsystem of MIS..... personnell subsystem
- Q.57 The subsystem of MIS..... finance and accounting subsystem
- Q.58.The subsystem of MIS..... top management subsystem
- Q59. What is the advantage of MIS..... facilitate planning
- Q60. What is the advantage of MIS..... minimises information overload
- Q61.What Is the advantage of MIS..... mis encourages decentralization
- Q62. What is the advantage of MIS..... bring co-ordination
- Q63.What Is the advantage of MIS.... makes control easier
- Q64. What is highly sensitive and requires constant monitoring.....MIS
- Q65. Budgeting of what is extremely difficult....MIS
- Q66. What affects the quality of information.... quality of data
- Q67.MIS lacks what....flexibility
- Q68. Effectiveness of mis decreases due to what.... frequent changes in top management
- Q69. Which factors are taken into consideration by MIS.... only qualitative factors
- Q70. Where is Mis applied.... strategy support and data processing

Decision support system

It is an interactive Computer Based systems which help decision makers utilise data and models to solve unstructured problems

- ☐ Characteristics

Provides Rapid access to information

Handles large amount of data from different sources

provides report and presentation flexibility

Offers textual and graphical orientation

Supports drill down analysis

performs Complex sophisticated analysis and comparison using advanced software packages

☐ Classification

File drawer systems

Data analysis systems

Analysis information system

Accounting models

Representational models

Optimisation models

Suggestion models

☐ Functions

What if analysis

Goal oriented

Risk analysis

Model building

Graphical analysis

☐ Types of DSS models

Graphical model

Narrative model

Physical model

Symbolic model

Information based model

☐ Advantages of DSS

Improving personal efficiency

Improving problem solving

Facilitating communications

Promoting learning or training

Increasing organizational control

☐ Disadvantages

Slow

Difficult

Limited storage capability

Limited information sharing

Confliction

Require extensive knowledge

Translation problems

☐ Applications of DSS

Independent problems

Inter related problems

Organizational problems

☐ GDSS

It supports the exchange and flow of information and ideas seamlessly between members of the decision making group....it also maintains the privacy of the members

Q71. Name the system which supports the process of decision making....DSS

72. DSS supports the process of what.....decision making

73. Which system is interactive Computer Based and helps decision makers utilise data and models to solve unstructured problems.... DSS

74. What are the examples of DSS....GDSS, CSCW, LOGISTIC SYSTEM, FINANCIAL PLANNING SYSTEM

75. What provides Rapid access to information.... DSS

76. What handles large amount of data from different sources... DSS

77. How do managers get access to different kinds of reports in formats that fit to their requirement...DSS

78. DSS offers what type of orientation.... textual and graphical

79. What supports drill down analysis....DSS

80. Name the components of DSS..... data management subsystem and model management subsystem and user interface subsystem and knowledge based management subsystem

81. What are mechanism and version of of manual filing system.... file drawer system of DSS
82. Which system manipulates data by means of analysis operations..... data analysis system
83. What gives access to a series of database and small models.... analysis information system
- 84.. Where are consequences of planned actions calculated on the basis of accounting definitions..... accounting models
85. Who helps in estimation of consequences of actions based on non definitional model.... representational models
86. Which system generates optimal solution that helps in providing guidelines for action..... Optimisation models
87. Suggestion models are used in which cases.... where decisions are of repetitive nature
90. What is the first step in constructing DSS.... choosing a problem
91. What is the second step in constructing a DSS... selecting Software and Hardware
92. What is the third stage in constructing DSS.... data acquisition and Management
- 93.What Is the fourth stage in constructing DSS.... model subsystem acquisition and Management
94. What are the activities of DSS... what if analysis and goal oriented and risk analysis and model building in and graphical analysis
95. Name different types of DSS models..... graphical narrative physical symbolic and information based
96. Which system improves personal efficiency... DSS
97. Which system improves problem solving.... DSS
98. Which system facilitates communication... DSS
99. Which system promotes learning or training...DSS
100. Which system increases organisational control...DSS
101. What are disadvantages of DSS.... it is slow difficult Limited storage capability Ee Limited Information sharing confliction and requires extensive knowledge

101. In which problems is DSS applied.... Independent interrelated and organisational problems

102. In which system a group can interact with each other to arrive at a particular decision.....GDSS

Executive information system

It is a resource tool ;a system that delivers rapid access to the selected key information executives need for their decision making

Users do not need IT or keyboarding skills

Access is through icons or mouse or touch screen

Data is presented through color and graphics

☐ Features of EIS

Drill down capabilities

Designed with management's critical success factor in mind

Status access, trend analysis, exception reporting

Personalized analysis

Presents graphical, tabular and textual information

☐ Components of EIS

Hardware

Input data entry devices

Cpu

Data storage files

Output devices

Software

Text base software

Database

Graphic base

Model base

Interface

Telecommunication

☐ Functions of EIS

Support for defining a vision
Support for strategic planning
Support for strategic organizing and staffing
Support for crisis management

❓ Digital dashboard

It integrates the information from various sources and represents them in an easily understandable, combined format...e.g. charts or graphs

❓ Advantages

visual representation, determines and rectifies digital trends, analyze efficiencies, detailed reports of new trends, use of business intelligence, sync between strategies and goals, saving of time, immediate access to all systems, recognize data outliers and correlations.

❓ Advantages

Used for decision making
Trend analysis capability
Enhances leadership skills
Better personal thinking
Strategic control flexibility
Healthy competition
Information can be accessed
Instrument of change
Increased executive time horizon
Better reporting system
Mental model of business
Consensus communication
Office automation

❓ Disadvantages

Cant perform complex calculations
Difficult to quantify advantages
Information overload
Systems become slow and hard to manage
Keeping recent data is tough
Less reliable and insecure data

Huge cost of implementation

☐ Applications

Manufacturing

Marketing

Financial

Artificial intelligence

AI is automation of activities that we associate with human thinking, decision making, problem solving, learning, etc.

It is the art of creating machines that perform functions that require intelligence when performed by persons.

It is making computers think...i.e. machine with minds

☐ Features

Thinking and reasoning

Solve problems

Understand and learn through experience

Acquire knowledge and apply it

Showcase imagination and creativity

deal with confusing situations

Quick response to new situation

Recognize elements in the situation according to its relative importance

Deal with incomplete, ambiguous and erroneous situation

☐ Role in business

Preserve intelligence and knowledge

Store info for access by a wider group

Eliminates monotonous jobs

Suggests solutions of similar situations

Provides strategic advantage

☐ Applications

Cognitive science applications

learning systems, expert system, fuzzy logic, genetic algorithms, neural networks, intelligent agents

Robotics application

visual perception, tactility, dexterity, locomotion, navigation

Natural interface application

natural languages, speech recognition, multi sensory interfaces, virtual reality

Machine learning

A form of artificial intelligence

Enables computers to learn without any kind of exclusive programming

Different patterns in data are identified by machine learning programs and different program actions are performed

It can be used when expert knowledge is not present or not reliable or costly

☐ Types of machine learning

Supervised learning

Unsupervised learning

Reinforcement learning

☐ Advantages and disadvantages

Many applications, google facebook uses it, multi dimensional and multi variety data can be managed, time cycle reduction and proficient resource utilization, continuous quality improvement in large and complex process, improved application of algorithms for various applications

Depends on significance of data, limited application of machine algorithm, susceptibility to errors, immediate prediction chances are complex

Expert system

Knowledge base of facts and relationship which can draw conclusion based on such knowledge

Data is knowledge and processing of data(knowledge) is controlled by computer programs.

Even non expert can use

Acts as excellent guide towards performance of ill structured system

It is an intelligent computer programme that uses knowledge and inferences procedures to solve problems those are difficult enough to require significant human expertise for their solution.

☐ Features

High level expertise

Predictive modelling power

Institutional memory

Ability to provide a training facility

☐ Functions

Design

Diagnosis

Instruction

Interpretation

Monitoring

Negotiation

Planning

Prediction

Reconfiguration

Regulation

☐ Components

Knowledge acquisition subsystem

Knowledge base

Inference engine

User interface

Blackboard

Explanation subsystem

Knowledge refining system

☐ Advantages

- Increased output and productivity

- Decreased decision making time
- Increased process and product quality
- Reduced downtime
- Capture of scarce expertise
- Flexibility
- Easier equipment operation
- Elimination of the need of expensive equipment
- Operation in hazardous environment

☐ Disadvantages

- Hard
- Specific tasks
- Need of expert engineers
- Limited domain
- Limited vocabulary
- Dependent
- Different thought
- Costly

☐ Applications

- Manufacturing
- Marketing
- Accounting and finance
- Personnel
- General business

Q. Information system designed to cater specific needs of of Executive is is called.....EIS

Q. EIS is commonly considered as a specific form of....DSS

Q. It is a a Computer Based information delivery and communication system to support needs ofTop executives

Q. Drill down capabilities is a feature of.....EIS

Q. What are the features of EIS..... drill down capabilities management critical success factors status exercise personalised analysis

Q. What are the components of EIS.... hardware software air interface telecommunication

Q. First stage of development of EIS.... justification

Q. Second stage of development of EIS..... planning

Q. Last stage of development of EIS..... system deployment

Q. Traffic dashboard traffic – are different names of..... digital dashboard

Q. It is a successful example of digital dashboard..... Bloomberg

Q. Where can performance measures be represented visually..... digital dashboard

Q. Where is it possible to to determine and rectify negative trends..... digital dashboards

Q. System has trend analysis capability....EIS

Q. Which system enhances managers leadership skills....EIS

Q. Which system involve strategic control flexibility...EIS

Q. Which system cannot perform Complex calculations...EIS

Q. Which system are prone to become slow large and hard to manage....EIS

Q. Where is EIS applied.... manufacturing marketing Finance

Q. The the effort to make computers think.... artificial intelligence

Q. Artificial intelligence is making..... computers think

Q. What are the features of artificial intelligence.... thinking reasoning solving problems learning through experience showcase imagination deal with incomplete information

- Q. Who will eliminate monotonous jobs in business.... artificial intelligence
- Q. Suggest solutions of similar situations.... artificial intelligence
- Q. Where is artificial intelligence applied..... cognitive science applications
Robotics applications natural interface applications
- Q. Machine learning is a form of..... artificial intelligence
- Q. Artificial intelligence which enables computers to learn without exclusive programming is known as... machine learning
- Q. Elements of machine learning.... learning element knowledge base
performance element feedback element Standard System
- Q. Types of machine learning..... supervised learning unsupervised learning
reinforcement learning
- Q. Robot locomotion game playing banking and financial sector are applications of..... machine learning
- Q. How can multidimensional and multi variety data be managed in uncertain environment.... through machine learning
- Q. What is the drawback of machine learning..... susceptibility
- Q. What is the drawback of machine learning..... immediate predictions are complex
- Q. An expert system is software consisting of..... knowledge base
- Q. Conclusions based on knowledge base can be drawn by.... expert system
- Q. What are features of expert system..... high level expertise predictive modelling
power institutional memory providing training facilities
- Q. Classes of expert system.... consultant expert interface assistant idiot servant
- Q. Design diagnosis instruction interpretation monitoring planning prediction
regulation are functions of... expert system

Q. What is a temporary database which interprets current problem as per input data.... blackboard

Q. Advantages of expert system..... increased output decreased decision making time reduced downtime flexibility e revision of training

Q. Disadvantages of expert system..... dependent costly

Q. Where is expert system applied..... manufacturing marketing accounting and Finance personal general business

Q. Manufacturing marketing accounting general business uses application of... expert system