SET – I

Q.No 1. What are the Characteristics and Types of information?

Characteristics

Types

To perform various functions and processes effectively, an enterprise collects data related to its target market, customers, and competitors. This data helps an enterprise to make crucial business decisions. Data is a representation of facts, observations, assumptions, and occurrences related to the people, processes, and functions of an enterprise. Data can be collected in the form of text, numbers, audio, video, and images.

However, data seems to be useless until it is processed to extract the desired results. When data is processed and converted into a form that has a specific meaning, it becomes information. For example, when a market researcher asks people to complete questionnaires about a product or a service, the collected questionnaires are data. When this data is processed and analysed to prepare a market report, the resulting report is information. So, you can say that information is a well-processed form of data that has a specific meaning and purpose. Information helps an enterprise in decision making. Thus, it is important for an enterprise to have accurate and timely information.

Characteristics =>

Information is integral to effective decision making in an enterprise. Therefore, it is important for an enterprise to have the right information, in the right form, and at the right time, to make correct decisions. The following are the characteristics of information:

Accuracy:

Implies that information should be correct and based on facts. Inaccurate information not only turns useless, but also leads to ineffective decision making.

Relevance:

Refers to one of the most important characteristics of information. The information can only be useful if it is relevant to the respective domains of decision making. For example, an enterprise wants to formulate effective marketing strategies. In this case, the collected information should be related to current market trends and needs and preferences of customers.

Timeliness:

Implies that information should be available when it is needed. For example, you are the marketing manager of an enterprise. You have to select an appropriate promotional tool. In such a case, if you get information related to consumer behaviour after the completion of the decision-making process, the information is useless. So, you should note that the value of the information is inversely proportional to time.

Completeness:

Refers to the characteristic of the information being fully interpretable. If the information does not make complete sense, it may not help in decision making.

Types =>

Decision making takes place at all the levels of an enterprise (top level,middle level, and bottom level). So, managers at different levels require different types of information to make business decisions. Based on these levels, information is categorised in the following three types:

Strategic Information:

Refers to the information that is used by the top management of an enterprise to establish an overall business strategy. Strategic information can be related to the profitability of each division of an enterprise, level of competition in the market, and investments made by the enterprise.

Tactical Information:

Refers to the information that helps middle-level managers in the allocation of resources. Tactical information can be related to business productivity, profit and cash flow forecasts, and prices of

different products.

Operational Information:

Provides support to the bottom-level managers of an enterprise in carrying out day-to-day operational tasks. For example, a production manager may want information related to the quality control checks that are being carried out in the manufacturing process.

Q.No 2. Explain nature, need and role of Management Information System.

Nature

Need

Role

Management is a process of planning, organising, directing, and controlling organisational resources. MIS is a computer-based system that supports managers to perform various management functions, such as planning, organising, directing, and controlling. According to Davis and Olson, “MIS is an integrated user- machine system designed for providing information to support operational control, management control and decision making functions in an organisation. ISs make use of resources such as hardware, software, men, procedures as well as suppliers.”

MIS collects data from various internal and external resources, processes it, and provides meaningful information. To process this data, MIS applies certain technical and analytical measures. The information given by MIS helps managers to make informed business decisions, which, in turn, improves the organisation’s performance.

In short MIS is an information system that enables managers to perform various managerial functions, such as planning, organising, directing and controlling, by providing updated information. On the other hand, ERP is a system that integrates the information obtained from different information systems (such as BPR, MIS, DSS, and EIS) for business decision making.

Nature =>

MIS is an interdisciplinary approach that encompasses people, procedures, software, databases, and devices to provide useful information to managers for business decision making. Let us study the nature of MIS as follows:

System Approach:

Refers to an approach in which an organisation is considered to be a set of interrelated sub-systems. MIS coordinates and integrates the different sub-systems of an organisation by providing the required information.

Technical Concept:

Implies that MIS makes use of a number of technologies for data collection, data processing, and data dissemination.

Interdisciplinary Concept:

Implies that MIS encompasses various disciplines, such as accounts, marketing, sales, production, operations research, and computer science, and provides integrated information.

Need =>

Below the list of various purpose of MIS:

1. Provides useful and timely information to managers.
2. Provides a basis for logical decision making.
3. Disseminates integrated information among the different departments of the organisation.
4. Ascertains a rational basis for business planning.
5. Improves operational control in the organisation.
6. Provides access to information to all the employees of the organisation.

Role =>

The main aim of MIS is to help managers in making complex business decisions easily and efficiently. Besides, MIS helps an organisation in the following ways:

Deal with business complexities:

The business environment is changing constantly with continuous advancement in technology. These changes have increased the complexity of different business functions. For example, to gain hold in the market, most organisations have branches in different parts of the world. In such a case, it is difficult for organisations to have control on operations performed at all the branches. To deal with such complexity, MIS provides integrated information to all the branches.

Survive in stiff competition:

MIS helps an organisation to remain competitive by providing accurate and updated information related to current market trends. This information helps managers to make various strategic decisions effectively.

Perform managerial functions effectively:

In the present business era, the role of managers in an organisation cannot be limited to some specified functions. Nowadays, managers are responsible for effective business planning, decision making, and forecasting. MIS helps managers to perform their functions effectively and quickly. For example, MIS helps managers in comparing the sales of the last five years with the sales of the current year by representing sales data in a graphical or tabular form.

Adapt to changes:

MIS helps an organisation to respond quickly to changes in the market. For example, nowadays, customers prefer to avail services through the Internet. With the help of MIS, an organisation can provide an online service facility to its customers.

Q.No 3. Explain briefly about Material Requirement Planning (MRP)

Material requirement Planning

Material requirement Planning =>

In the 1960s, most organisations implemented software packages for controlling and managing their inventory. However, these organisations were not completely satisfied with these software packages. As a result, in the 1970s, a new system called MRP was invented.

MRP is a production planning and inventory-control system that helps an organisation in managing its manufacturing processes effectively. Moreover, it enables an organisation to keep track of the due date of order, the date when the order is scheduled to arrive, and the date when the order is actually received. The following are the main objectives of an MRP system:

* Ensuring the availability of raw materials for producing products
* Making products available for customers
* Reducing the inventory level
* Planning and scheduling activities related to purchasing, manufacturing, and product delivery

**The following are some key benefits of an MRP system**

Maintaining an Adequate Level of Inventory:

An MRP system helps a manufacturing organisation prepare a production schedule. This schedule

enables the organisation to determine an appropriate level of inventory in order to meet production requirements, thereby, reducing the inventory cost of the organisation.

Maintaining an Economic Ordering of Lot Size:

An MRP system helps an organisation determine the exact lot size required for producing products. In addition, it enables the organisation to determine production requirements, carrying costs, quantity price breaks, and transportation costs. This, ultimately, helps the organisation in selecting the most cost-effective order.

Planning and Scheduling Purchasing Activities:

If the demand for a product increases, an organisation needs to determine the type and amount

of inventory required to meet this demand. This can be easily done by using an MRP system.

Planning Production Activities:

An MRP system helps an organisation in preparing a production plan by determining an adequate amount of input to be employed for producing products. In addition, it enables the organisation

to modify its production plan by providing information related to the shortage of inventory during the production process.

Making Efficient Allocation of Resources:

An MRP system helps an organisation determine the quantity of resources, such as men and material, required for producing products. This further helps the organisation allocate its resources effectively for its manufacturing process.

To provide the above benefits, an MRP system requires three types of inputs, namely, Master Production Schedule (MPS), Bill of Material (BOM), and Inventory Records (IR). The system processes these inputs and provides the following output:

* Planned order quantities
* Planned order release dates
* Planned order due dates

SET - II

Q.No 1. Explain features, benefits and limitations of inventory management system

Features

Benefits

Limitations

Inventory management is all about supervising the inflow and outflow of the inventory of an organisation. Effective inventory management is integral to successful business operations. This is because, excessive amount of inventory may incur high cost for an organisation, while inadequate

inventory hampers the production process of the organisation. Inventory management is a complex process and involves a number of activities. Therefore, in order to manage their inventory efficiently, most organisations use an ERP system with an inventory management module.

The inventory management module controls the overall inventory management process of an organisation. The module helps an organisation to track the movement of inventory. The inventory management module is fully integrated with the other modules of an ERP system, thereby, providing real-time inventory information to all business areas.

Features =>

Following are some important features of the ERP inventory management system:

* It is an organisation-wide system that improves the overall efficiency of an organisation.
* It involves quality-check parameters to identify the desired quality level of materials.
* It performs continuous inventory analysis, thereby, maintaining the optimum stock level.
* It performs extensive inventory monitoring by taking into account the rate of inventory consumption.
* It automatically updates the status of stock on-hand, reserved stock, ordered stock, defective and rejected stock, etc.
* It makes use of bar codes while managing inventory, thereby, facilitating easier inventory tracking.

Benefits =>

The main advantage of the ERP inventory management system is that it integrates all the departments and branches of an organisation located in different parts of the world. Apart from this, following are some of the other benefits of the ERP inventory management system:

* It enables an organisation to consistently track the level of inventory available, thereby, planning the stock to be purchased.
* It helps in tracking the movement of materials in an organisation.
* It facilitates effective communication within and outside the organisation.
* It provides details of all the activities involved in the inventory management process of an organisation.
* It provides reliable information related to the current inventory level, the amount of inventory required, etc.

Limitations =>

Some of the main limitations of the ERP inventory management system are as follows:

* It cannot be fully customised according to the different requirements of an organisation.
* It requires high cost, time, and effort, of an organisation.
* It requires past data and proper user training for its installation, which makes it a complex task.
* It is less effective for information sharing, unless users are willing to share information.

Q.No 2. Write short notes on the following:

a. Sub-modules of CRM

b. Features of Human Resource Management(HRM) module

a. Explaining the 3 sub-modules of CRM

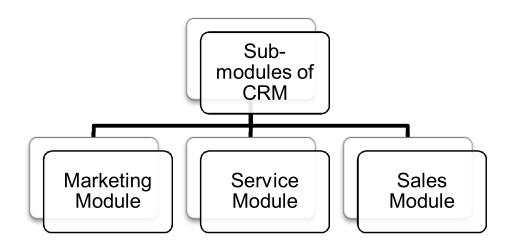
b. Listing at least 4 features of HRM module

Customer Relationship Management (CRM) is a tool that helps an organisation to strengthen relationships with its customers. It enables an organisation to identify the needs and expectations of customers and fulfil them, thereby, achieving higher customer satisfaction. In other words, CRM can be defined as a business strategy that focuses on customer satisfaction and retention.

The ERP system with CRM functionality provides information related to customers such as their name, contact history, needs and preferences, and repeat purchases. This information enables an organisation to provide a quick response to customer queries and make sound business decisions.

The CRM system works in association with its different sub-modules. These sub-modules are:

1. Marketing module
2. Service module
3. Sales module



Explaining the 3 sub-modules of CRM =>

Marketing module:

The marketing module of a CRM system helps an organisation in:

* Executing marketing-related activities
* Making long-term marketing plans
* Conducting marketing campaigns through different communication modes
* Targeting potential customers and retaining the existing ones
* Identifying sales-related opportunities

Service module:

The service module of a CRM system helps an organisation in:

* Improving customer service
* Processing service orders
* Managing service contracts
* Complying with service-level agreements

Sales module:

The sales module of a CRM system enables an organisation to:

* Manage and execute the pre-sales activities
* Capture sales opportunities
* Enhance customer interaction
* Support data processing
* Centralise the relevant sales data at a single location

Listing at least 4 features of HRM module =>

The human resource management module is an integrated solution designed to improve the efficiency of human resource operations by reducing time-consuming administrative tasks and deploying self-service applications. In addition, the module automatically updates an employee database and facilitates online employee communication. The module not only helps an organisation to maintain employee data but also allows employees to update their personal information as and when required.

Some of the important features of the human resource management module of an ERP system are as follows:

* It is able to define the job roles and responsibilities of employees.
* It helps in recruiting the right employees with the right skills and competencies.
* It simplifies the activities involved in the employee selection and placement process of an organisation.
* It is capable of shortlisting eligible applicants from the pool of applications based on pre-specified selection criteria.
* It can update the details of a number of employees at a single point of time.
* It continuously tracks the performance of employees, thereby allowing an organisation to conduct performance appraisals and determine training needs accordingly.

Q.No 3. Who is an ERP consultant? Describe different types of ERP consultants, and the role of ERP consultant.

ERP consultant

Types of ERP consultants

Role of ERP consultant

ERP consultant =>

Experts who can deal with issues, which may take place during an ERP implementation are known as business consultants or simply consultants. These consultants possess sound knowledge of system development. Moreover, they have expertise in the administration, management, and control of ERP implementation projects.

Consultants provide comprehensive support to an organisation, right from the phase of package evaluation till employee training. These consultants perform multiples roles, such as project manager, team leader, and vendor service representatives, when they are hired by organisations. Generally, trained consultants are technically proficient and flexible in working with different computer applications. Moreover, these consultants have sound knowledge of software and the prevailing market conditions. They also have relationship building, communication, and problem-solving, skills. However, hiring a trained consultant is not possible for every organisation, as they charge a huge amount of money.

Following are the major functions performed by consultants in an ERP implementation:

* Maintaining the documents used during the ERP implementation project
* Examining the existing market conditions and business processes of an organisation
* Performing time study and gap analysis during the implementation process
* Customising the system and reviewing its operations

Types of ERP consultants =>

ERP consultants usually provide three types of consultation services, namely, managerial consultation, application consultation, and technical consultation. Based on this categorisation, consultants are also grouped into three main categories, which are:

Management Consultants:

These consultants primarily focus on managerial functions (planning, organising, directing, and controlling) related to ERP implementation. For example, organising the resources and planning the flow of data. They also direct an organisation throughout the ERP implementation process and the system usage.

Application Consultants:

These consultants mainly focus on configuring the system as per the requirements of an organisation. In addition, they are also responsible for instructing the organisation about the functioning of the system through demonstrations. This helps the organisation in performing its business functions with the help of the newly installed system.

Technical Consultants:

These consultants primarily concentrate on resolving technical issues that may rise during an ERP implementation. These technical issues can be related to database conversion, source code modification, communication protocols, operating system management, and programme integration. These issues are usually identified by management and application consultants during an ERP implementation. Therefore, technical consultants need to work in close integration with the management and the application consultants.

Role of ERP consultant =>

Following are some of the Roles and responsibilities of ERP consultants:

* Perform an extensive research in order to determine the functionality of the system, thereby, meeting the needs of organisations.
* Supervise training programme in order to ensure that the training objectives are met properly.
* Supervising the entire ERP implementation process
* Formulating a plan of actions and ensuring that all the tasks are performed in the planned way
* Ensuring the participation of all the members associated with the ERP implementation project
* Adding value to the ERP implementation project through their expertise and knowledge
* Saving additional costs, resources, and time of the organisation
* Providing application support so that the organisation can derive the desired benefits of the ERP system
* Customising the ERP package through thorough analysis
* Making the organisation understand the pros and cons of their present legacy system