**ERP Solutions**

 **SET-A (Solutions)**

 **MCA Vth sem IIIrd Year Ist Mid-Term Oct.-2018**

Ans. 1 a) ERP systems tie together and define a plethora of business processes and enable the flow of data between them. By collecting an organization’s shared transactional data from multiple sources

b) Enterprise resource planning (ERP) tools combine all business processes into one unified system. The purpose of these tools is to make the best possible use of all resources of the business to give the company a competitive edge.

c)Business process re-engineering (BPR) is a [business management strategy](https://en.wikipedia.org/wiki/Strategic_management), focusing on the analysis and design of [workflows](https://en.wikipedia.org/wiki/Workflow) and [business processes](https://en.wikipedia.org/wiki/Business_process) within an organization. BPR aimed to help [organizations](https://en.wikipedia.org/wiki/Organization) fundamentally rethink how they do their work in order to dramatically improve [customer service](https://en.wikipedia.org/wiki/Customer_service), cut [operational costs](https://en.wikipedia.org/wiki/Operational_costs), and become world-class [competitors](https://en.wikipedia.org/wiki/Competitor).

d) In [software](https://www.webopedia.com/TERM/S/software.html) a module is a part of a program, and programs are composed of one or more independently developed [modules](https://www.webopedia.com/TERM/M/module.html) that are not combined until the program is linked.

e)**Failed ERP implementation in manufacturing isn’t good news. Yet time and again, we hear of manufacturing ERP systems that have delivered no measurable benefits, or indeed, which have simply failed.**

Ans 2 a) The following summarizes the advantages and disadvantages of implementing a package based application solution versus a custom solution.

|  |  |  |
| --- | --- | --- |
| Category | Software Package | Custom Development |
| Risk | Already tried and tested. | New product carries greater risk. |
| Team Qualifications | Less expertise is required in analysis, design, and development. | Requires considerable expertise in analysis, design, and development. |
| Time | Less time is required to implement. | More time is required to complete analysis, design, and development. |
| Cost | Initial cost is lower. | Initial cost is higher. |
|  |  |  |
| Documentation | High quality documentation is expected. | Quality of documentation will depend on the skill of the project team writers. |
| Flexibility | Other related applications are generally easily available. | Other applications must be custom developed. |

b) Business process re-engineering refers to the analysis, control and development of a company’s systems and workflow. The principal idea behind business process re-engineering is that a company is a collection of processes that evolves over time. Business processing re-engineeringengineering gained prominence in the 1990s, but has re-emerged as business software and enterprise applications have provided more in-depth analytics with which to evaluate business systems.

Ans 3.a) Decision support systems have been incorporated into businesses to support human intelligence for years. However, these systems are not perfect. Although DSSs stop a decision maker from promoting a bias, they simply aid in decision making by offering useful insights into easily consumable bites. The idea is to present all tangible information in the forms of graphs, pictures or text, so that you don’t overlook facts.

* **Difficulty in Quantifying All the Data:** A decision support system majorly relies on quantifiable data. Consequently, it’s difficult to analyze intangible or indefinable data. In reality, some values cannot be very specific and defined in numbers.
* **Unaware of Assumptions:** As a decision maker, you may not be fully aware of the assumptions that a decision support system has considered when analyzing data for a specific problem. Making decision without considering uncontrollable factors may prove to be dangerous
* **System Design Failure:** Decision support systems are designed to the specific needs of a decision maker. If you don’t know what you want a DSS to do or how it should help you, it will be difficult to design a system that fits your needs.
* **Difficulty in Collecting All the Required Data:** As a decision maker, you must realize that it’s not possible to capture all of the related data mechanically. While some data is difficult to record, some cannot be recorded at all.
* **Lack of Technology Knowledge in Users:** Although decision support systems have become much simpler over the years, many decision makers still find it difficult to use. Lack of technological knowledge remains an issue.

## b.) ERP Advantages :- Enterprise resource planning systems are an asset for almost any organization. They make your business run smoother by unifying and protecting your information; automating processes and reports; managing important information through total systems integration; and providing easy views into trends.

1)Lower IT Costs 2) Total Visibility3) Improved Reporting and Planning

4)Complete Customization5) Improved Efficiency6) Customer Service 7) Data Security

8)Improved Collaboration and Workflows 9)Deep Integration 10) Improved Data Quality

10)Improved Data Accessibility 11)Standardized Business Processes 12)Facilitated Regulatory Compliance 13) Improved Supply Chain Management 14)Superior Scalability

## Ans 4. What is Data warehouse:- Data warehouse is an information system that contains historical and commutative data from single or multiple sources. It simplifies reporting and analysis process of the organization.

There are mainly five components of Data Warehouse:-

### Data Warehouse Database

The central database is the foundation of the data warehousing environment. This database is implemented on the RDBMS technology. Although, this kind of implementation is constrained by the fact that traditional RDBMS system is optimized for transactional database processing and not for data warehousing. For instance, ad-hoc query, multi-table joins, aggregates are resource intensive and slow down performance.

### Metadata

The name Meta Data suggests some high- level technological concept. However, it is quite simple. Metadata is data about data which defines the data warehouse. It is used for building, maintaining and managing the data warehouse.

Query Tools

One of the primary objects of data warehousing is to provide information to businesses to make strategic decisions. Query tools allow users to interact with the data warehouse system.

These tools fall into four different categories:

1. Query and reporting tools
2. Application Development tools
3. Data mining tools
4. OLAP tools
5. Data warehouse Bus Architecture
6. Data warehouse Bus determines the flow of data in your warehouse. The data flow in a data warehouse can be categorized as Inflow, Upflow, Downflow, Outflow and Meta flow.

### Data Marts

A data mart is an access layer which is used to get data out to the users. It is presented as an option for large size data warehouse as it takes less time and money to build. However, there is no standard definition of a data mart is differing from person to person.

 OR

Ans:- Monitoring and controlling the activities right from supplier's supplier to customer's customer

1. THE ROLE OF MARKETING IN SCM Given the role of marketing in the implementation of supply chain management, suggested by a cause-and-effect relationship between the marketing concept, a market orientation, relationship marketing.
2. THE ROLE OF SALES IN SCM Given that the role of the contemporary salesperson is changing dramatically, and that in many situations, the old models of selling are simply outdated, ineffective, and counterproductive to supply chain management goals
3. THE ROLE OF RESEARCH AND DEVELOPMENT IN SCM Considering the role of research and development (R&D) within the firm, and with suppliers, customers, and the supply chain.
4. THE ROLE OF FORECASTING IN SCM Given the increasingly important contribution to supply chain performance offered through effective sales forecasting management.
5. THE ROLE OF PRODUCTION IN SCM Considering the role of production within the firm, with suppliers, customers, and the supply chain.
6. THE ROLE OF PURCHASING IN SCM Given the evolution of the role of purchasing and the purchasing role in support of a firm’s SCM strategies and objectives, as well as the objectives and role of purchasing in a supply chain management context versus historical approaches.
7. THE ROLE OF LOGISTICS IN SCM Considering the role of logistics in the supply chain, including the major functions comprising logistics, emerging logistics strategies, and logistics competencies that drive competitive advantage for the firm.
8. THE ROLE OF INFORMATION SYSTEMS IN SCM Given the role of information systems within the firm and the role of information systems with suppliers, customers, and the supply chain.
9. THE ROLE OF FINANCE IN SCM Considering the financial implications of supply chain decisions, trends in supply chain costs, a financial model for evaluating investments, and concerns for financial.
10. THE ROLE OF CUSTOMER SERVICE IN SCM Considering the elements of customer service management important to supply chain management, performance outcomes associated with customer service activities and their contribution to supply chain objectives, and customer responses to the outcomes of a firm’s customer service activities

 SET -B

### Ans . a) Data Marts :- A data mart is an access layer which is used to get data out to the users. It is presented as an option for large size data warehouse as it takes less time and money to build.

 b) Decision support systems have been incorporated into businesses to support human intelligence for years. However, these systems are not perfect.

c) It is extended enterprise resource planning that is used in advance features of erp.

d) Business process re-engineering (BPR) is a [business management strategy](https://en.wikipedia.org/wiki/Strategic_management), focusing on the analysis and design of [workflows](https://en.wikipedia.org/wiki/Workflow) and [business processes](https://en.wikipedia.org/wiki/Business_process) within an organization

e) Data mining is the process of discovering patterns in large data sets involving methods at the intersection of machine learning, statistics, and database systems.

Ans 2 a) A business will typically use a combination of different modules to manage back-office activities and tasks including the following:

* Distribution process management
* Supply chain management
* Services knowledge base
* Configure prices
* Improve accuracy of financial data
* Facilitate better project planning
* Automate the employee life-cycle
* Standardize critical business procedures
* Reduce redundant tasks
* Assess business needs
* Accounting and financial applications
* Lower purchasing costs
* Manage human resources and payroll

B) Here we are, with 6 of the most popular ERP myths demystified:-

 1] **ERP is an activity primarily mean**

2] **One size fits all- We can just implement one ERP solution for all our group**

 **companies.**

3] **We have an excellent business track record. We can expand our operations by**

 **scaling the extant processes.**

4] **ERP is high-priced. Only multi national corporations can afford to it.**

5] **ERP is helpful only for senior management.**

 6] **All our work will be taken care of by the ERP tools.**

## Ans 3 a) Data Mining Applications

Here is the list of areas where data mining is widely used −

* Financial Data Analysis
* Retail Industry
* Telecommunication Industry
* Biological Data Analysis
* Other Scientific Applications
* Intrusion Detection

 b) OLAP is a category of software that allows users to analyze information from multiple database systems at the same time.

Four types of analytical operations in OLAP are:

1. Roll-up
2. Drill-down
3. Slice and dice
4. Pivot (rotate)

1) Roll-up:

Roll-up is also known as "consolidation" or "aggregation." The Roll-up operation can be performed in 2 ways

1. Reducing dimensions
2. Climbing up concept hierarchy. Concept hierarchy is a system of grouping things based on their order or level.

2) Drill-down

In drill-down data is fragmented into smaller parts. It is the opposite of the rollup process. It can be done via

1. Moving down the concept hierarchy
2. Increasing a dimension

**3) Slice & Dice** -Here, one dimension is selected, and a new sub-cube is created.This operation is similar to a slice. The difference in dice is you select 2 or more dimensions that result in the creation of a sub-cube.

**4) Pivot** :- you rotate the data axes to provide a substitute presentation of data.

### Ans 4:-ERP (Enterprise Resource Planning) is software which provides variety of important functions that can be integrated by every department of your organization worldwide.

### Some features of ERP software are described below as:

#### **Integration :-**There is no denying in the integration issues that accompanies many ERP deployments, whether you are migrating legacy data into ERP system or adding the third party application to an existing one. The ERP Software companies seamlessly integrate into your existing infrastructure, that essentially simplifies your all process from data collection and analyze the complex manufacturing and customer management task.

####  **Finance & Accounting**

The financial filings under enormous scrutiny for companies cannot afford to miss making payments or overlook accounting details, due to the regulatory requirements at all the time. The important components

#### **Mobile Functionality**

According to the studies, the enterprise mobile workers will make up 73% of the workforce by the year 2012. That’s all the more reason to select an ERP solution which provides the remote access to its database and processes.

#### **Sales Management**

ERP module handles the sales workflow like sales inquiries, quotations, sales order and sales invoice. The sales and ERP modules work together to speed up the cycle of sales management and can make the company earn more profits.

#### **Human Resource Management**

ERP HR modules have moved beyond the core processes which include the payroll, legal reposting and employee administration.

#### **Inventory Management**

Whether the organizations buy it or make it, the businesses are required to know what they have in hand to sell when the customer require the material and where does it exist.

#### **Delivery Methods**

Say goodbye to traditional licensing paradigms, as these days the companies are interested in ERP which can choose from a variety of delivery methods. The SaaS model, offer the company’s access to business services such as the Payroll, HR, procurement, etc. Just forget about the cost and time-consuming deployments, ERP systems are fast and easy to deploy.

#### **Supply Chain Management**

In today’s fast and competitive environment, the highly competitive marketplace, and the [ERP Software development Companies](http://www.tekshapers.com/blog/ERP-and-CRM-Development-%3A-A-Perfect-Mix-For-Your-Business) need to be able to monitor the demand, supplies manufacturing status, logistics, and distribution in record time.

#### **Third-Party Interoperability**

Almost, all of the businesses are required to extend bolt on the additional system just to satisfy the unique aspects of their business which are not addressed by their ERP system

#### **Manufacturing**

One of the most important features of the ERP system is manufacturing, but it is not the trendiest application of ERP technology.

 OR

As you, all know ERP is Enterprise Resource Planning. ERP system is an IT solution that helps companies to achieve enterprise-wide integration, which results in faster access to accurate information required for decision making. ERP combines all the business functions together into one single integrated system with a single central database.

ERP become a fascinating, dependable and satisfactory model for all business applications.The business can easily complete tasks and steer towards more growth and productivity.

**ERP and the Current situation in India!**

* Currently, the SME segment in India has become the most demanding category for ERP solutions. Nearly 60% of the SME sector have already integrated ERP solutions into their business.
* We have to say thanks to those developers who developed the affordable and efficient ERP modules, hence SME s can now afford the financial needs to integrate and streamline ERP s into their Business needs. This helps the SMEs for smooth and efficient inventory management, time management, human resource management, customer relationship management, Purchase Management and also in the online data business.
* Currently, the majority of the SMEs are implementing ERP.  The next step was the integration with ERPs on large enterprises, thus lift up the efficiency of organizations even further. There should be enough awareness floating through the air to let them know about the high profit to cost ratio that ERPs can bring to an organization.
* Experts / Specialists have estimated that in the last decade the overall ERP market has experienced a growth of nearly 70% and many market researchers point out the number of