

CBCS SCHEME

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16/17MCA352

Third Semester MCA Degree Examination, Dec.2018/Jan.2019

Enterprise Resource Planning

Time: 3 hrs.

Max. Marks: 80

Note: Answer FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. What is an Enterprise? What is the role of Enterprise? Discuss with example. (08 Marks)
b. Discuss the benefits of ERP. (08 Marks)

OR

- 2 a. What is data warehouse? Write the uses of data warehouse. (08 Marks)
b. Discuss the difference between knowledge verification and discovery. (08 Marks)

Module-2

- 3 a. Explain the different phases of ERP implementations. (08 Marks)
b. Discuss the different phases of ERP life cycle. (08 Marks)

OR

- 4 a. Explain the role and responsibilities of ERP vendors. (08 Marks)
b. Write the golden rules for successful project management. (08 Marks)

Module-3

- 5 a. Discuss the functional module of ERP software. (08 Marks)
b. Explain subsystem of controlling. (08 Marks)

OR

- 6 a. Discuss the following :
i) Material and capacity planning (04 Marks)
ii) Shop Floor control. (04 Marks)
b. Explain the subsystem of personnel management in Human Resource. (08 Marks)

Module-4

- 7 a. Explain the different ERP market tiers with their characteristics. (08 Marks)
b. Write short notes on oracle corporation. (08 Marks)

OR

- 8 a. What are the different product modules available from JD Edwards? (08 Marks)
b. Discuss the detail about SAP AG business applications and solutions. (08 Marks)

Module-5

- 9 a. What is Enterprise Application Integration? Explain the uses, and implementation pitfalls of EAI in detail. (08 Marks)
b. Explain the future directions in ERP and trends. (08 Marks)

OR

- 10 a. Explain the important of the integration of ERP with internet and WWW. (08 Marks)
b. Discuss about ERP and E-Business. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8= 50, will be treated as malpractice.

University Paper Solution – Enterprise Resource Planning – 17MCA352 –Odd Sem 2018

1.A. What is an Enterprise? What is the role of enterprise? Discuss with example

Enterprise: An enterprise is a group of people with common goal, which has certain resources to achieve this goal.

The roles of a typical business enterprise can be broadly classified into the following categories:

1. Marketing function,
2. Finance function,
3. Production function,
4. Human Resources Management function,
5. Information function.

Information needs of a business enterprise can, thus, be identified under these broad functional areas. However, at the very outset it is essential to point out that the present market realities suggest that the focus of all business functions should be the customer.

Each of the functions of business should, therefore, aim at goals such as reducing costs, streamlining processes, maintaining good relations with customers, reducing cycle times, maintaining high degree of quality control, customizing products and services, catering to niche markets, etc.

B. Discuss the benefits of ERP

ERP stands for enterprise resource planning. ERP is the technique and concepts for integrating business as whole with the objective of efficient use of management resources and to improve the efficiency of enterprise management.

Enterprise: An enterprise is a group of people with common goal, which has certain resources to achieve this goal.

Benefits of ERP:

Information Integration

Reduction of Lead-time

On-time Shipment

Cycle-time reduction

Better Customer satisfaction

Improved supplier performance

Increased flexibility

Reduced quality cost

Improved resource utilization
Better analysis and planning capabilities
Improved information accuracy & decision making capabilities
Use of latest technology

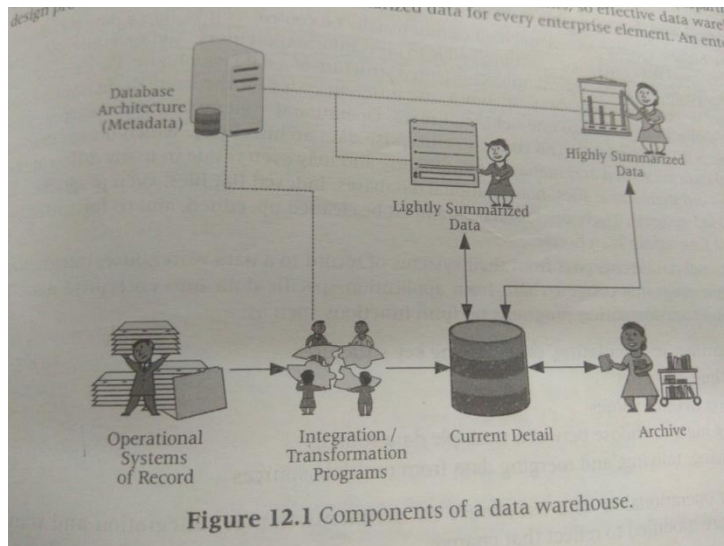
1. A. What is data warehouse? Write the uses of data warehouse

Data Warehouse- Designed to support decision making.

Data warehousing: The primary goal is to provide access to the data of organization.

Data warehouse Components:

1. Summarized data'
2. Operational Systems of records
3. Integration/ transformation programs
4. Current detail
5. Data warehouse architecture/ metadata
6. Archives



Summarized Data: is divided into two – lightly summarized and highly summarized.
Lightly summarized data are the hallmark of a data warehouse.
Highly summarized data are primarily for enterprise executives.

Current detail: The heart of the source of the data that feed the datawarehouse. Data in a data warehouse differ from operational data and be stored as raw data or as aggregations of raw data.

System of Records: A system of record is the source of data that feed the data warehouse. Data in data warehouse differ from data in operational systems, in that they can only be read, not modified.

Integration and Transformation Program performs the following functions:

Reformatting, re-calculating, or modifying key structures

Adding time elements

Identifying default values

Supply logic to choose between multiple data sources

Summarizing, tallying and merging data from multiple resources

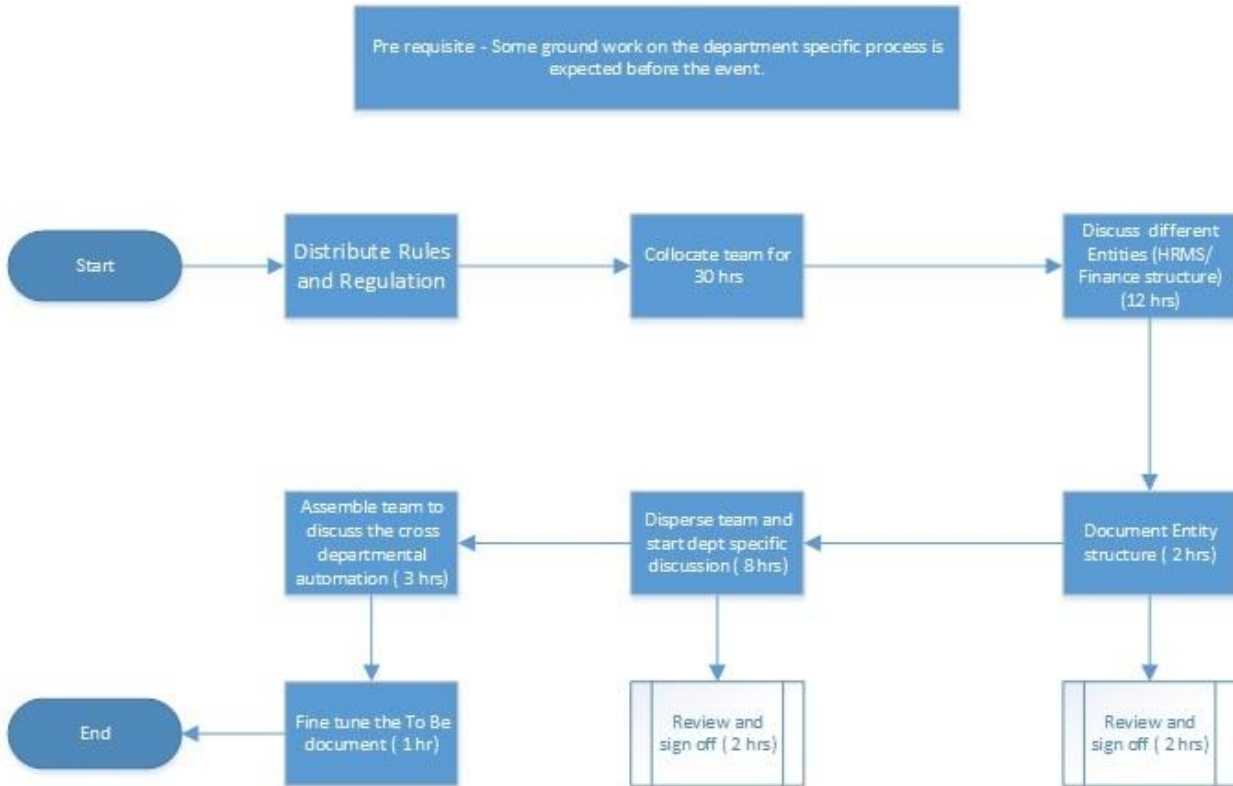
Archives: Data warehouse contains old data of significant, continuing interest and value to the enterprise.

Metadata: The physical implementation of a data warehouse is defined using a naming convention and syntax rules. It is required that a separate data definition language is implemented which provides a meaningful description of information contents.

B. Discuss the difference between knowledge verification and discovery.

2. A. Explain the difference phases of ERP implementation.

A methodology is a roadmap to an implementation. The purpose of a methodology is to deliver an implementation on time, according to specification and within budgets.



Accelerated SAP:

1. Project Preparation
2. Business Blue-Print
3. Realization
4. Final Preparation
5. Go-Live and support continuous change.

Perfect Path:

Program management of vendor and internal client resources, project plan, and budget
 Comprehensive business process re-engineering and workflow definition
 Incorporation of lean manufacturing, six-sigma
 Improvement of technical infrastructure
 Alignment of ERP implementation with business requirements
 Risk management and mitigation planning activities
 Organization change management, communication and training activities
 Integration between the core ERP system and business processes, systems and stake holders
 Definition of ERP measure of success
 Optimization of measurable business benefits
 Functional and technical development and support

ERP Implementation method:

Fugo Consulting:

Project Planning, Gather requirements, Critical business processes, Customizing, Prototyping, Testing, Additional functionality, Go-Live, Warranty support.

Off-Shore-Onsite ERP Implementation methodology:

Define:

- Project scope
- Work content definition
- Project plan
- Business requirements
- Conversions and interfaces
- User signoff

Design:

- Gap analysis
- Configuration of the base system
- Development of customization or extension
- Design of conversions
- Interface designs
- Solution foot print design signoff

Configure:

- Business process mapping to establish functional flows
- Development of custom code over and above base application functionality
- Solution footprint unit testing

Deploy

- Migration of tested code to the target instance for production
- Creation of base instance setups followed by conversions, interfaces and customization
- Ready for go-live

Support

- Help the client to build necessary skills
- Planning of transition for handover of the system to the client team.

B. Discuss the different phases of ERP Life Cycle

Pre-evaluation Screening:

When the company has decided to implement the ERP the search for the convenient and suitable ERP package begins.

Package Evaluation:

The objective of this phase is to find the package that is flexible enough to meet the company's need or in other words, software that could be customized to obtain a 'good fit'.

Project Planning Phase

This is the phase that designs the implementation process. Time schedules, deadlines, etc. for the project are arrived at. The project plan is developed in this phase.

Gap-Analysis

This is the most crucial phase for the success of the ERP implementation.

Simply it is the process through which companies create a complete model of where they are now, and in which direction they want to head in the future

Reengineering

The second use of the word 'reengineering' in the ERP field focus on the Business

Process Reengineering (BPR)

Configuration

In this case business process have to be understood and mapped in such a way that the incoming ERP solutions match up with the overall goals of the company.

Implementation Team Training

This is the phase where the company trains its employees to implement and later, run the system.

Testing

The test cases must be designed to specifically to find the weak links in the system and these bugs should be fixed before going live.

Going Live

In this phase all data conversion must have been done, and databases are up and running; and the prototype is fully configured and tested.

End-user training

The employees who are going to use the new system are identified and their skills are noted.

Post – implementation

There must be enough employees who are trained to handle the problem that might occurred when the system is running.

3. A. Explain the role and responsibilities of ERP vendors

1. The vendor should supply the product and its documentation as soon as the contract is signed.
2. The vendor is responsible for fixing any problems in the software that implementation team encounters.
3. The vendor should play the role of trainer
4. Necessary modification has to be made after analyzing the gap.

B. Write the golden rules for successful project management

and shock us because we were looking forward to success and were not aware of potential traps and risks. Any large project is as much an exercise in failure management and avoidance as it is in task accomplishment.

Also being prepared to react in cases of a crisis or spotting just a few reduces the risk of complete failure. Crisis management procedure should be planned and communicated to the implementation team. Organisations can avoid potential risks by incorporating the following into the company culture:

- Do not do things for the wrong reason. Identify the benefits that will result from your project, make sure every project-related action is directed toward achieving those benefits. Remember, benefits supersede company politics.
- Involve key stakeholders as early as possible. All stakeholders—managers, implementation team, consultants, employees, and so on—should own the project. They will be credited for its success or blamed for its failure.
- Failure is not an option. No one must believe that the project will be terminated. ERP implementation is a 'do it right the first time' kind of project. You either implement the system successfully or you will go out of business.
- Create a financial analyst position or team to track and analyze project costs and realized benefits.
- Warn off the disbelievers. If successful results are truly important to your company, naysayers must be silenced. Remove those who will not support the project or if that is not possible, make their future success with the company dependent on the success of the implementation.
- Cast implementation details in concrete. Set realistic and achievable dates and milestones and do not change them. Promote the implementation loudly, leaving no room for anyone to believe that the company will tolerate missing the deadline.
- Keep the project under control. The larger a project is and the longer it takes, the greater is the likelihood of failure. Hence, the ERP implementation should be finished as quickly as possible. Spending enough time on preparing, planning, and documenting for every contingency and starting the implementation after careful preparation can help overcome this.
- Designate a single leader. Shared leadership is divided leadership.
- When choosing a new vendor, put a premium on vertical industry expertise.
- Do not rub the wrong way with your vendor. All terms and conditions should be agreed upon and should be included in the vendor contract. The vendor should be made aware of what is expected and when. Never use your software vendor as a scapegoat. You will need his goodwill as well as his technical support for the long-term success.
- Keep functional managers accountable. An ERP implementation is not the sole responsibility of the ERP project manager and the implementation team. The functional managers have a very vital role to play. They should release people to the implementation team, support the new system and help in spreading awareness about it and dispelling the myths. They should also encourage their group to completely co-operate with the implementation team and should lead by example. They can be of critical help in bringing about the cultural transformation in the organization that is required for the success of the implementation and operation of the ERP project.
- Make business objectives the primary drivers of the project. Investing in technology for the sake of technology does little more than drain company assets. Business objectives must be the

4. A. Discuss the functional module of ERP software

Financial Module

Finance module sub systems:

- Financial accounting
- Investment management
- Controlling
- Treasury
- Enterprise controlling

Financial accounting:

General Ledger

Special Ledger

Accounts receivables & payables

Asset accounting

Legal Consolidation

Investment Management: Provides support for investment process from planning to settlement.

Treasury Module:

Cash management

Treasury management

Market risk management

Funds management

Enterprise Controlling:

Executive Information System

Calculation of ROI

Profit Center Accounting

- Manufacturing
- Plant Maintenance module
- Material management
- HR Module
- Quality Management
- Sales & Distribution

B. Explain subsystem of controlling

Controlling:

Over-head cost controlling

Cost-Center controlling

Overhead Orders

Activity based costing

Product cost controlling

Cost-Object Controlling

5. A. Discuss the following:

Material and Capacity planning

Shop Floor Control

MATERIAL AND CAPACITY PLANNING

1. The planning systems of ERP packages are designed to provide the responsiveness your company needs to meet those customer requirements.
2. With these systems, planners can stimulate alternative plans; gaining the information they need to determine which parts and assemblies to make, which to buy and when to manufacture or purchase.
3. Material plans can be developed from a wide variety of sources that include the master schedule, sales forecasts and dependant and independent demand.
4. The company can customize planning processes because input is described by system parameters that are easily changed.
5. To reduce effort and accelerate communication across the supply chain, planned orders can be confirmed and converted automatically (or manually) into production and purchase orders.
6. Graphical reporting makes potential material and capacity problems easy to identify.
7. Depending on the requirements of the company's product and processes, production can be scheduled using work orders or repetitive build schedules.
8. Using the shop floor control facility, the company has the visibility necessary for managing lead-times and for carefully controlling the amount of work-in-process and the timely release of production orders.

SHOP FLOOR CONTROL

1. Process reengineering efforts and the elimination of waste have necessitated greater reliance upon powerful, user friendly, flexible shop floor planning and control systems.
2. Management needs timely, accurate information and the ability to manage the shop floor by exception.
3. A shop order can be reprinted at any time with user selection of whether to relocate material
4. This reprinting gives a shop foreman flexibility to print a duplicate copy when an order is split between operators.
5. This feature also gives the shop scheduler, the ability to reprint the shop packet and to reflect new material allocations that correct previous shortages.

B. Explain the subsystem of personnel management in Human Resource

Personnel management
 Personnel administration
 Employee master data
 Information system
 Recruitment
 Travel management
 Benefits administration
 Salary administration

6. A. Explain the different ERP market tiers with their characteristics

Annual revenue more than \$250 million	Annual revenue between \$25 - \$250 million	Annual revenue less than \$25 million
High complexity	Medium Complexity	Limited functionality
Highest cost of ownership	Medium cost of ownership	Lowest cost of ownership
Can be used in many industry	Vertical industry focus	Vertical industry focus
Industry Specific solution	One product for all industry	One product for all industry
Largest ERP companies	Medium ERP companies	Small ERP companies
International Operations	International operations	
Multilanguage, muticurrency capabilities	Can have multilanguage, multicurrency capabilities	

B. Write short notes on Oracle Corporation.

- Oracle Applications
- Oracle E-Business Suite
- Siebel
- Oracle Fusion Applications
- Oracle Primavera
- Oracle PeopleSoft Applications

7. A. What are the different product modules available from JD Edwards?

- Oracle JD Edwards Enterprise One
- Oracle JD Edwards World

B. Discuss the detail about SAP AG business applications and solutions.

SAP AG:

Business Suite

SAP Analytics

SAP ERP

SAP Business One

SAP business by design

SAP business all-in-one solution

8. A. What is Enterprise Application Integration? Explain the uses, and implementation pitfalls of EAI in detail

Application integration (EAI) is a process of linking these applications and others in order to realize financial and operational competitive advantages. In an era of economic globalization and e-business, Enterprises are struggling with the ERP system in achieving objectives like a maintain a competitive edge , providing access to the global trading environment etc.

Uses of EAI:

1. Data (Information)integration
2. Process integration
3. Vendor independence
4. Common façade

EAI implementation pitfalls:

1. Constant change
2. Lack of EAI experts
3. Competing Standards
4. Thinking of EAI as a tool as opposed to a system
5. Discarding details along the way
6. Emerging requirements.
7. Unclear accountability

B. Explain the future directions in ERP and trends.

New markets
New channels
Faster implementation methodologies
Easier customization tools
Reduction in implementation time
Growth of 3rd party service
Acquisition and mergers
Growth of SAAS and cloud ERP market
Industry specific solutions
Mobile ERP solutions
Open Source ERP

9. A. Explain the importance of the integration of ERP with internet and WWW.

Social tools can be effective in the workplace when tied into your ERP solution. User-friendly social applications can help increase productivity and improve collaboration both within your enterprise and with your business partners. As the next generation of ERP systems emerges, social applications are proving their value in connecting businesses internally and with customers. Not the same as integrating ERP systems with external social media sites, social ERP apps mirror the functionality of online social networking tools. The interface may act like Facebook, but it is secured and maintained with your ERP solution.

Social ERP tools can facilitate collaboration and communication among employees and partners

using your ERP system. Connecting people quickly and easily enables them to proactively solve busi-

ness problems together. Primary benefits of social functionality for ERP:

- Facilitate collaboration and communication in the enterprise
- Easily track conversations, projects and processes
- Improve business processes
- Document business processes to support lean initiatives
- Enhance customer engagement
- Build and maintain your knowledge base

Analysts are predicting that social media and social apps will become a more significant component of the ERP landscape. Becoming more social can improve your company's agility and facilitate competitive advantage. Making your enterprise social brings the power of the back-office to the front-office, helps customers collaborate, and drives growths .

B. Discuss about ERP and E-Business

E-business stands for 'electronic business', which involves communications and doing business electronically through the Internet. E-business is defined as the use of electronically enabled communication networks that allow business enterprises to transmit and receive information.

It can significantly improve business performance by strengthening the linkages in the value chain between businesses (B2B) and consumers (B2C). Besides increasing efficiency in selling, marketing and purchasing, e-Business achieves effectiveness through improved customer service, reduced costs and streamlined business processes. Furthermore, e-Business creates a strategic, customer-focused business environment for shared business improvements, mutual benefits and joint rewards.

Companies use the Internet to implement customer relationship management (CRM) and supply chain management (SCM) capabilities, which enabled them to link their operations seamlessly with customers and suppliers.