**ERP past paper 2017**

**Short Questions**

**Q1: What do you mean by legacy systems in ERP?  
Ans: Legacy systems**, or older, standalone, disparate business systems, and seamlessly integrating and coordinating them.  
**Q2: What do you mean by SaaS?  
Ans:** In cloud computing, companies make periodic payments to the vendor or service provider for the software, infrastructure, and maintenance. This remote delivery model, known as software as a service (SaaS), makes it easier to budget for the ERP system.  
**Q3: What are the biggest pitfalls when planning an ERP?  
Ans:** Poor planning can lead to missed opportunities, costly mistakes, or even failure, depending upon how massive the problems are and how long they continue.  
**Q4: List the goals behind the implementation of an ERP system?  
Ans:** Changing business model, desire for growth, need for advanced functionality, too many business systems supporting processes, for compliance.  
**Q5: What do you mean by 3 tier in ERP?  
Ans: Tier 1 ERP vendors** sell ERP solutions to large, multinational corporations with more than 1,000 employees and revenues greater than $1 billion (collectively known as the enterprise space).  
**Tier 2 ERP** vendors sell ERP solutions that are designed for mid-market companies, which usually range in size from $50 million up to $1 billion in annual revenues and have between 250 and 1,000 employees.  
**Tier 3 ERP** vendors sell products that are designed for smaller companies that range in annual revenues from $10 million to $50 million and have fewer than 250 employees.  
**Q6: What do you mean by middle wear in ERP?  
Ans:** Middleware is software that facilitates sharing data and business logic across systems and requires a certain degree of IT support to set up and maintain.  
**Q7: What do you mean by out sourcing in ERP?  
Ans: Outsourcing** refers to contracting out certain business activities previously performed internally to a third party, or service provider.  
**Q8: Identify the kinds of data that each main functional area needs in ERP?  
Ans:**

**Q9: Define technology enabled reengineering of ERP?  
Ans:** Instead of starting over from scratch, most companies today in need of radical change to their business processes embrace ERP systems and other technologies as the means for transformation. This form of reengineering is known as technology enabled reengineering.  
**Q10: Explain BPI (business process improvements) in ERP?  
Ans:** Companies use to upgrade their business processes is called business process improvement (BPI), which involves gradual improvement to business processes over time. BPI is incremental and evolutionary.  
**Q11: Explain BPR (business process reengineering) in ERP?  
Ans: Business process reengineering (BPR)** is the fundamental, radical redesign of business processes that an organization under takes to achieve breakthrough performance in key measures of cost, quality, speed, and service. It consists of the methods that companies use to transform their business processes in a major way. BPR is radical and revolutionary changing.  
**Q12: Explain MRP with respect to ERP?  
Ans: Material requirements planning (MRP) systems,** which is software that manufacturing companies use to plan production and calculate more precisely what materials they require, at what time, and in what quantities. MRP generates schedules for production operations and the raw material purchases needed based on finished goods requirements.  
**Q13: List down core features of HCM (human capital management)?  
Ans:** Integration, Single user record, knowledgeable support, and cloud based modular approach.  
**Q14: What are different features of auditing in any ERP?  
Ans:**

**Q15: What are lean manufacturing in any ERP?  
Ans:**  ‘Lean manufacturing’, sometimes referred to as the ‘Just-In-Time’ (JIT) production doctrine has been extant in the consumer development sector for many decades.

**Q16: What is an ERP system?**

**Ans: Enterprise resource planning (ERP) systems** are business systems that integrate and streamline data across the company into one complete system that supports the needs of the entire enterprise.

**Q17: How are ERP systems different from legacy systems?**

**Ans: Enterprise resource planning (ERP) systems** are business systems that integrate and streamline data across the company into one complete system that supports the needs of the entire enterprise.  
**Legacy systems**, or older, standalone, disparate business systems, and seamlessly integrating and coordinating them.

**Q18: What are advantages of ERP systems? Disadvantages?  
Ans: Benefits** of ERP systems include data integration, real-time access to information, standard business processes and interfaces, a shared data model, industry best practices, and reduced costs and increased revenue.  
**Disadvantages** of ERP systems include their high cost, time-consuming implementation, employee resistance, and the burden of constant maintenance and upgrades.

**Q19: How do ERP systems support industry best practices?  
Ans:** ERP vendors design their solutions around processes based on industry best practices. A best practice is a business process that is generally recognized as more effective and/or efficient than others in a particular industry.

**Subjective Part (16\*13)**

**Q.2: Business intelligence has been playing vital role in ERP. List examples of high level business intelligence. What do you mean by data cleansing explain concept with respect to ERP?   
Ans:   
Business intelligence (BI)** refers to the ability to take information resources and convert them into knowledge that is useful in decision-making.  
BA extends the knowledge from “this is what the report says” to “this is what we think will happen next.”  
While BI uses only structured data, BA uses both structured and unstructured data.  
 **Structured data** is data that is stored in a field within a record or file. This includes data contained in and spreadsheets.  
**Unstructured data** refers to information that doesn’t reside in a traditional row-column database or spreadsheet.  
**Types of Business Analytics**

* **Reports**
* **Queries**
* **Alerts**
* **Scorecards**

**Report**The most basic type of BA (and BI) is a **report**, which is a presentation of data that has been transformed into formatted and organized information per business requirements.  
Reports answer the simple question, “What happened?”  
Many BA solutions allow users to sort, filter, and drill up, down, or through data in reports.  
**Queries**A **query** is the primary mechanism for retrieving information from a report.  
But BA tools make it easy on the user by providing a simple interface for a user to enter queries.  
Instead of writing an entire SQL command, the user can just fill in blanks or select items to define the query.  
**Alerts**An **alert** is an automated message or notification that indicates when a predefined event or exception on a metric (too much over or under a metric) has occurred and an action is needed.  
Alerts are programmed so that the responsible party is notified about the exception via email with an embedded link to the relevant BA object in a graph, report.  
For example, a store manager can be alerted when the stock level of a critical item falls below a certain level.  
Alerts enable “management by exception” and notify users when something critical occurs, thereby relieving them of the need to continuously monitor results or produce reports in hopes of finding a problem before it negatively impacts the business.  
**Scorecards**Analytics makes use of **data visualization**, which helps users understand the significance of data by placing it in a visual context.  
The main visualization tool used in BA is the **dashboard**, which displays information in a condensed but efficient manner.  
Whereas a report may take time to digest, depending on the level of detail and amount of data, a dashboard typically consists of a single webpage intended to give answers at a quick glance.  
**Dashboards** do not typically contain reports, but instead summarize data with color coded bar charts, graphs, gauges, and other visual indicators that should be monitored because they are important to the user’s functional area.  
**Data mining** is the statistical analysis of large pools of data to find hidden correlations and trends. Also called **knowledge discovery**, this method seeks to find patterns and relationships in data and summarize it into useful information that can be used to increase revenue, cuts costs, or both.  
**Data cleansing:  
Data cleansing/Data scrubbing** – changing the format of the data into what the ERP system requires; involves correcting inaccuracies in the data such as incorrect code numbers, obsolete data, duplications, and misspellings.  
**Q.3: Draw ERP life cycle with respect to implementation explain with examples?  
Ans: ERP Life Cycle -Implementation**   
Software implementation is a structured approach to integrating software into the workflow of an organization, thereby transforming its business operations. The following sections describe various ERP implementation activities, starting with installation of the ERP system.   
**Installation**Software installation is the process of either transferring the software from disc or downloading it from the internet onto the hard drive of a computer. The ERP system, database, and operating system must be installed on servers, creating multiple environments for use during and after implementation. Installation may also include creating or upgrading the technical infrastructure that will support the ERP system.  
**Configuration**ERP systems are designed by software vendors based on the generic needs of many different companies. Because of the many options available within each ERP system, companies spend a lot of time during implementation determining which of these options will be switched on or off, which entails making entries into various tables to make the ERP system meet their particular needs. This process, known as configuration, is a major task during implementation. Database tables used for configuration are called configuration tables.   
**Customization**Customization involves modifying existing code or adding additional code to the ERP system to make it fit a company’s unique needs. The majority of companies implementing ERP systems customize them.   
**Bolt-on Technology**

Companies may need to purchase a third-party software package, referred to as a bolt-on, to obtain additional functionality not present in the chosen ERP system. With this approach, the software is “bolted-on” to the ERP system.  
**Conference Room Pilot**Early on, during the package selection stage, the ERP system might have been installed on a server to allow the selection team to practice business tasks with the new software and determine fits and gaps. These “workshops” continue throughout implementation and are known as conference room pilots (CRPs), since conference rooms are typically designated as temporary locations for the work.   
**Key objectives of CRPs include:**

Define and document desired end-to-end business processes and workflows for configuration Identify in a detailed manner gaps between the new ERP system and the old system for Customization/addition of bolt ons. Recognize the impact of the changes on affected departments and individuals and estimate training and change management needs Understand the strengths and weaknesses of the ERP software being considered (during package selection) Test the system prior to go-live.  
**.Data Migration**Data migration is the process of moving master and transaction data from the legacy systems being retired into the new ERP system. This process can include moving whole data entities or data fields into the ERP system from areas that are being automated for the first time. Companies typically use the following data migration procedures during an implementation:   
**▪ Data extraction** – taking data out of existing legacy systems and databases; requires special utilities obtained through the ERP vendor or a third-party vendor.

**▪ Data collection** – compiling new data not already in digital format; may require that spreadsheets are populated with the required data before moving it into the ERP system.   
**▪ Data cleansing/Data scrubbing** – changing the format of the data into what the ERP system requires; involves correcting inaccuracies in the data such as incorrect code numbers, obsolete data, duplications, and misspellings.   
**▪ Data harmonization** – standardizing data, often from different sources, into a common format company-wide; examples include standardizing material numbers and customer numbers.  
▪ **Data loading** – putting the data into the ERP system; many iterations of testing should be performed on this data prior to and after loading into the ERP system to ensure a successful go-live.   
**Testing**Testing helps confirm that data has been loaded successfully into the ERP system and that the system behaves as expected. Specific types of testing include:   
**▪ Data migration testing** – The ERP system must be able to properly use the data transferred from the previous system(s).   
**▪ Data mapping testing** – When the ERP system is interfaced with other systems, data is mapped from one system to the other. This can often be the most difficult type of testing because technology platforms and languages may be divergent and the mode of transport can vary from relatively straightforward point-to-point interfaces to increasingly more sophisticated middleware technologies. Also, corrupt or invalid data may reside in the other systems, which causes display issues in the ERP system.  
**▪ Unit testing** – This is the lowest level of functional testing in which discrete steps in a business process or a single customization are tested against the specification. An example of unit testing is entering a purchase order and saving it.   
**▪ Integration testing** – This type of testing involves checking end-to-end business processes, including any customizations to the system. As transactions are executed, expected results can be compared to actual results. An example of integration testing is simulating the entire purchase-to-pay process.   
**▪ User acceptance testing** – The final round of integration testing prior to go live, user acceptance testing tasks end users with making sure the system meets their approval and agreeing that it is ready to move to production.

**▪ Authorization testing** – This is security testing in which user roles and authorizations are verified. Tests for security should include both positive and negative tests to demonstrate that allowed functionality can be accessed by a particular user role or that disallowed functionality is appropriately denied. Authorization testing is important to a secure identity and access management (IAM) infrastructure.   
**▪ Performance load testing** – This type of testing is used to determine whether the ERP system and database can handle the load that will be placed upon it by simultaneous users by testing the response times of key business processes and transactions. These stress tests must pass predetermined acceptance criteria or performance thresholds. Performance testing is often conducted using software to simulate peak volume, such as Load Runner.

**Q.4: Write down various components of manufacturing CRM and knowledge management?  
Ans: Elements for CRM Success:**These three elements, which are described as follows:   
**People** – Everyone in the organization who will be using the CRM system or be affected by the system must accept the new way of doing work.   
**Process** – Once everyone is committed to the project, a company’s current marketing, sales, and service business processes must be evaluated. Redesign of current processes should reinforce the CRM strategy from the viewpoint of understanding how the customer can be best served.   
**Technology** – A firm should select a CRM system that is user friendly, drives the redesigned processes, and provides high-quality data to employees.  
**Knowledge Management**Knowledge is information gained through experience, association, or familiarity. Organizations encompass two types of knowledge:   
 **Explicit knowledge** – knowledge that is easily documented and codified, including a company’s aggregation of documents about its business processes, customers, research results, legal agreements, and other information that might have value to a competitor and is not common knowledge.   
**Tacit knowledge** – knowledge that is contained in people’s heads gleaned from years of working in a particular industry and/or for a particular company. This type of knowledge is also called intellectual capital, which is the brainpower of humans that can be leveraged internally and externally to create more power than if it was only used by its owner. Tacit knowledge is key to competitive advantage because it is difficult for competitors to replicate.   
Both types, when captured, become organizational knowledge, or knowledge that has accumulated since the inception of the organization.   
**Knowledge management (K**M) is a directed process of figuring out what knowledge a company has that could benefit others internal or external to the company, then devising ways of making it easily available. A KM strategy is about finding solutions to problems and then sharing and reusing these solutions many times. A knowledge management (KM) system refers to any kind of system that captures and stores knowledge, improves collaboration by sharing knowledge, locates knowledge sources, mines repositories for hidden knowledge, or in some other way enriches the KM strategy.  
**Q.5: What do you mean by IT general and application controls in auditing ERP?  
Ans:   
IT general controls:**

Controls that apply to all systems components, processes, and data for a given

Organization or IT environment are called **IT general controls (ITGCs)**. These controls work to both secure and validate the data contained in the systems that process financial transactions. The objectives of ITGCs are to ensure the proper development of and changes to applications, databases, and operating systems; controls over logical access to the network and applications; and controls

Surrounding the data center. They are represented as pillars because, for ITAC to be effective, the auditor must first ascertain that the ITGCs are functioning properly. The rationale is that if the IT environment is not secure, then users cannot feel confident that controls within the applications are functioning properly.

The ITGCs are the first line of defense in a secure ERP environment.  
It should be noted that an organization will never have 100 percent assurance that all risks to IT resources are eliminated through IT controls. Because of the costs associated with protecting IT resources, companies must identify the potential risks facing their information systems and perform a cost-benefit analysis to determine the appropriate level of protection.

**Auditing Information Technology Application Controls (ITAC):**

It is very important to subject a company’s ERP software to a thorough and detailed audit because transactions involving its money, material, and services are recorded in the application. When evaluating ITACs in an ERP system, the auditor would focus on the modules. The first questions the auditor should ask are “What does this module do?” and

“What business process or processes does this module support?” This can be accomplished by studying the operating and work procedures of the organization, including process maps, process narratives, and interviewing key personnel in the business process under investigation.

Once the auditors know what the module does, they can identify the potential risks associated with the business processes in question by asking “What could go wrong?”

Then they can see how the risk is handled by asking the question “What controls the risk?” To answer these questions, the auditor must have business and technical knowledge.

Auditing of application controls is a complex process and is outside the scope of this book.

However, several example ITAC audit steps include:

● Inspection of system configurations in the Purchasing module to make sure quantities and prices are being checked in the three-way match

● Inspection of system configurations to ensure that duplicate vendor invoices are disallowed and that duplicate vendors cannot be entered into the system

● Inspection of a user access list for employees who can access payroll data and verification that this list reflects those who truly need this access

● Verification that audit trails and logs exist to ensure that all transactions can be traced to the individuals who entered them.

**Q.6: List ERP financial components and what functionality do they provide, list and explain five reengineering principles?  
Ans:** The Financial Accounting module includes components for general ledger, accounts receivable, credit management, accounts payable, and cash management.  
**Accounts Receivable**Accounts receivable is the money that a company has a right to receive because it had provided customers with goods and/or services. For example, a manufacturer will have an account receivable when it delivers a truckload of goods to a customer on June 1 and the customer is allowed to pay in 30 days.  
**Accounts Payable**Money that a company owes to suppliers for products and services purchased on credit is called accounts payable.  
**Cash Management**Cash management provides information to enable payment issues such as:  
Payment delay – If a payment can be delayed for 30 days, the cash used to make that payment can be used for other needs or left in interest-bearing accounts until the payment becomes due.  
**Credit Management**The main purpose of credit management is to prevent shipping goods to a customer who exceed their credit limit or don’t fulfill other credit relevant criteria.

**Reengineering principles:**  
