

Q1. Define ERP. Explain the fundamentals of ERP systems. (15 Marks)

Enterprise Resource Planning (ERP) is an integrated software system that manages and coordinates all core business functions of an organization using a **single, centralized database** and **real-time information flow**.

Fundamentals of ERP

1. Integration

- All departments share the same data.
- Eliminates data redundancy and inconsistency.

2. Centralized Database

- Single source of truth.
- Improves data accuracy and reliability.

3. Modular Structure

- ERP is divided into functional modules like Finance, HR, Production, Sales.
- Modules work independently but are tightly integrated.

4. Business Process Orientation

- Focuses on end-to-end business processes rather than isolated functions.

5. Real-Time Processing

- Transactions are updated instantly across modules.

6. Standardization

- Uses best business practices built into ERP software.

Conclusion

ERP enables organizations to improve efficiency, reduce costs, enhance decision-making, and gain competitive advantage.

Q2. Explain Business Process Mapping and its importance in ERP implementation. (15 Marks)

Business Process Mapping (BPM) is the technique of visually representing business processes to understand, analyze, and improve them before ERP implementation.

Steps in Business Process Mapping

1. Identify existing processes
2. Document current workflow
3. Identify inefficiencies and bottlenecks
4. Redesign processes to align with ERP
5. Implement standardized processes

Importance of BPM in ERP

- Helps understand **"As-Is"** and **"To-Be"** processes
- Avoids automating inefficient processes
- Reduces ERP customization
- Improves user acceptance
- Ensures ERP fits business goals

Conclusion

BPM is critical for successful ERP implementation and ensures smoother organizational change.

Q3. Explain the evolution of ERP from MRP to MRP II to ERP. (15 Marks)

1. Material Requirements Planning (MRP)

- Focused only on material planning
- Used for inventory control

- Limitations:
 - No financial integration
 - No capacity planning

2. Manufacturing Resource Planning (MRP II)

- Extended MRP
- Included:
 - Production planning
 - Capacity planning
 - Finance integration
- Limitations:
 - Manufacturing-centric
 - No HR or Sales integration

3. Enterprise Resource Planning (ERP)

- Integrates all business functions
- Includes Finance, HR, Sales, SCM, CRM
- Uses centralized database
- Real-time processing

Conclusion

ERP evolved to overcome the limitations of MRP and MRP II by providing complete enterprise-wide integration.

Q4. Differentiate between Business Functions and Business Processes. Explain ERP's role. (15 Marks)

Business Functions

- Department-based activities

- Examples: Finance, HR, Production
- Operate in isolation traditionally

Business Processes

- Cross-functional workflows
- Examples: Order-to-Cash, Procure-to-Pay
- Span multiple departments

ERP's Role

- Integrates functions into processes
- Enables seamless data flow
- Improves coordination and efficiency

Conclusion

ERP shifts focus from siloed functions to integrated business processes.

Q5. Explain the need for integration and ERP as a business integrator. (15 Marks)

Need for Integration

- Avoid data duplication
- Improve communication
- Enable faster decision-making
- Reduce operational delays

ERP as an Integrator

- Uses common database
- Connects all modules
- Ensures real-time data sharing

- Supports enterprise-wide reporting

Benefits

- Improved productivity
- Better customer service
- Accurate forecasting

Conclusion

ERP acts as the backbone of organizational integration.

Q6. Explain the benefits of ERP systems. (15 Marks)

Major Benefits

1. Operational efficiency
2. Data accuracy and consistency
3. Improved decision-making
4. Cost reduction
5. Enhanced customer satisfaction
6. Scalability
7. Standardized processes
8. Regulatory compliance

Conclusion

ERP provides both tangible and intangible benefits that improve organizational performance.

Q7. Explain the risks involved in ERP implementation. (15 Marks)

ERP Risks

1. High implementation cost
2. Time overruns
3. Resistance to change
4. Inadequate training
5. Poor data migration
6. Over-customization
7. Vendor dependency

Risk Mitigation

- Proper planning
- Top management support
- User training
- Change management

Conclusion

ERP risks can be minimized with disciplined implementation strategy.

Q8. Explain common misconceptions about ERP systems. (15 Marks)

Misconceptions

1. ERP is only for large companies
2. ERP solves all business problems
3. ERP implementation is quick
4. ERP eliminates need for employees
5. ERP is only an IT project

Reality

- ERP is a **business transformation initiative**

- Requires people, process, and technology alignment

Conclusion

Understanding ERP realistically increases success rates.

Q9. Explain core functional modules of ERP. (15 Marks)

1. Finance Module

- General ledger
- Accounts payable/receivable
- Asset management
- Financial reporting

2. Human Resource Module

- Payroll
- Recruitment
- Training
- Performance management

3. Production Module

- Production planning
- Scheduling
- Inventory control
- Capacity planning

4. Sales Module

- Order processing
- Billing
- Shipping

- Customer management

Conclusion

ERP modules work together to support enterprise-wide operations.

Q10. Explain business process before and after ERP implementation. (15 Marks)

Before ERP

- Manual data entry
- Separate databases
- Delayed information
- Errors and duplication
- Poor coordination

After ERP

- Automated processes
- Centralized database
- Real-time updates
- Reduced errors
- Improved efficiency

Example: Sales Order Processing

- Order entry updates inventory, finance, and production instantly

Conclusion

ERP transforms fragmented processes into integrated workflows.