

# **1. Explain the role of Artificial Intelligence (AI) and Machine Learning (ML) in ERP systems. (15 Marks)**

**AI and ML** enhance ERP systems by enabling **intelligent automation, prediction, and decision support.**

## **Role of AI in ERP**

- Chatbots for customer service
- Intelligent data processing
- Automated approvals and workflows

## **Role of ML in ERP**

- Demand forecasting
- Predictive maintenance
- Fraud detection
- Sales and inventory prediction

## **Benefits**

- Reduced human intervention
- Faster decision-making
- Improved accuracy

## **Conclusion**

AI and ML transform ERP from transactional systems into **intelligent business platforms.**

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# **2. Explain the integration of Internet of Things (IoT) with ERP systems. (15 Marks)**

**IoT** connects physical devices to ERP systems to enable **real-time data capture.**

## **ERP–IoT Integration**

- Sensors send real-time data to ERP
- ERP processes data for monitoring and control

## **Applications**

- Smart manufacturing
- Inventory tracking
- Equipment health monitoring

## **Benefits**

- Real-time visibility
- Reduced downtime
- Improved operational efficiency

## **Conclusion**

IoT-enabled ERP supports **smart and connected enterprises**.

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## **3. Explain the role of Blockchain technology in ERP systems. (15 Marks)**

**Blockchain** provides a **secure, transparent, and tamper-proof** data-sharing mechanism in ERP.

## **Applications in ERP**

- Supply chain traceability
- Secure transactions
- Smart contracts
- Audit and compliance

## **Benefits**

- Improved data integrity

- Enhanced trust
- Reduced fraud

## Conclusion

Blockchain strengthens ERP security and transparency.

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## 4. Explain ERP and Digital Transformation. (15 Marks)

**Digital Transformation** refers to using digital technologies to improve business processes and value delivery.

### ERP as a Digital Transformation Enabler

- Integrates all business functions
- Enables automation
- Supports real-time analytics
- Improves customer experience

### Technologies Involved

- Cloud
- AI & ML
- IoT
- Mobile ERP

## Conclusion

ERP is the **core platform** driving digital transformation initiatives.

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## 5. Explain Mobile ERP and User Experience (UX) Design. (15 Marks)

**Mobile ERP** allows users to access ERP systems using smartphones and tablets.

### Features

- Anytime, anywhere access
- Push notifications
- Mobile dashboards

## **UX Design Importance**

- Simple navigation
- Role-based interfaces
- Faster user adoption

## **Benefits**

- Improved productivity
- Faster approvals
- Better user satisfaction

## **Conclusion**

Mobile ERP with good UX improves agility and user engagement.

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## **6. Explain the role of ERP in SMEs and the importance of Cloud ERP. (15 Marks)**

**Small and Medium Enterprises (SMEs)** adopt ERP to improve efficiency with limited resources.

### **Why Cloud ERP for SMEs**

- Low initial cost
- Subscription-based pricing
- No infrastructure maintenance
- Scalability

### **Benefits for SMEs**

- Faster implementation

- Process standardization
- Competitive advantage

## Conclusion

Cloud ERP enables SMEs to adopt enterprise-grade systems affordably.

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## 7. Explain ERP Data Analytics and Reporting. (15 Marks)

**ERP Analytics** converts raw ERP data into meaningful insights.

### Types of Analytics

- Descriptive analytics
- Predictive analytics
- Prescriptive analytics

### Reporting Features

- Dashboards
- KPIs
- Real-time reports

### Benefits

- Better decision-making
- Performance monitoring
- Business forecasting

## Conclusion

ERP analytics improves strategic and operational decisions.

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## 8. Explain Low-Code ERP platforms and their future impact. (15 Marks)

**Low-Code ERP** allows application development using minimal coding.

## Features

- Drag-and-drop tools
- Visual workflows
- Rapid customization

## Advantages

- Faster development
- Reduced dependency on developers
- Lower costs

## Future Impact

- Democratization of ERP customization
- Faster innovation

## Conclusion

Low-code platforms make ERP more flexible and user-driven.

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## 9. Explain Industry 4.0 and its integration with ERP systems. (15 Marks)

**Industry 4.0** represents smart manufacturing using digital technologies.

### ERP Role in Industry 4.0

- Integrates smart machines
- Manages real-time production data
- Supports automation and analytics

### Technologies Involved

- IoT

- AI
- Robotics
- Big Data

## Conclusion

ERP acts as the **digital backbone** of Industry 4.0.

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## 10. Explain how ERP is evaluated for a case enterprise. (15 Marks)

### Steps in ERP Evaluation

1. Understand business requirements
2. Identify key processes
3. Evaluate ERP features
4. Cost-benefit analysis
5. Vendor evaluation
6. Scalability and support

### Evaluation Criteria

- Functional fit
- Cost
- Customization
- Technology platform
- Vendor reputation

## Conclusion

Proper ERP evaluation ensures successful implementation and long-term benefits.

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## Last-Day VTU Prediction (IMPORTANT)

 **Most expected questions: 1, 4, 6, 9, 10**

 **Write definition → features → benefits → conclusion**

 **Draw simple block diagrams if possible**