B. E / B. TECH.DEGREE EXAMINATIONS, MAY 2024

Reg. No· | | | | | | | | | | | |

Sixth Semester

ME18013 – ENTERPRISE RESOURCE PLANNING

(Mechanical Engineering)

(Regulation 2018 /Regulation2018A)

TIME:3 HOURS   **MAX. MARKS: 100**

Course Outcome	Statements	RBT Level
CO 1	The students will understand ERP concept, Business modeling, Business process and mapping of business modules.	2
CO 2	The students will apply ERP related technologies to information systems practiced in an organization.	3
CO 3	The students will study the ERP modules like finance, sales and distribution, manufacturing and quality management.	3
CO 4	Students will demonstrate a working knowledge of how data and transactions are integrated in an ERP system to manage the sales order process, production process, and procurement process.	3
CO 5	Students will develop the future directions of ERP implementation in new market, channels and E-business.	5

PART- A(10x2=20Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	Define Enterprise Resource Planning (ERP).	1	2
2.	What are the primary objectives of an ERP system?	1	2
3.	Distinguish between MIS and ERP.	2	2
4.	Why data warehousing is essential for data mining?	2	2
5.	What is the purpose of the Finance module within an ERP system?	3	2
6.	What is master data management in ERP?	3	2
7.	What role does the Purchase module play in procurement processes?	4	2
8.	How does the Sales and Distribution module benefit a sales team?	4	2
9.	Mention any four emerging trends in ERP technology.	5	2
10.	How can the integration of Artificial Intelligence (AI) enhance ERP systems?	5	3

PART- B (5x 14=70Marks)

		Marks	CO	RBT LEVEL
11. (a)	Explain the evolution of ERP systems from the 1960s to the present day, highlighting key developments and the rationale behind the transition from MRP to ERP systems with a suitable case study.	(14)	1	3

(OR)

| (b) | Discuss the benefits and challenges of implementing an ERP system in a multinational corporation, including global operations and cultural diversity considerations with an industrial case study. | (14) | 1 | 3 |

12. (a)	Illustrate the concept of an Executive Information System (EIS), outlining its key features, significance, components, and how it aids decision-making processes for senior executives? Include examples of practical applications and potential challenges in its implementation.	(14)	2	3

(OR)

(b)	Analyze the role of ERP systems in supply chain management and logistics, providing examples of how ERP can optimize operations and decision-making processes?	(14)	2	3

13. (a)	Demonstrate the role of the manufacturing module in Production Planning and control (PPC). Explain how it facilitates demand forecasting, production scheduling, and shop floor control, integrating with sales and distribution (SD) and Material Management (MM) modules?	(14)	3	3

(OR)

(b)	Examine the integration of the quality module with other ERP modules and its impact on overall product quality and compliance. How does the module support continuous quality improvement?	(14)	3	3

14.(a)	Illustrate the end-to-end procurement process within the Purchase module of an ERP system, from requisition to payment. Discuss how the purchase module ensures transparency, compliance, and efficiency in procurement operations?	(14)	4	3

(OR)

(b)	Analyze the process flow within the sales and distribution module of an ERP system from the creation of a sales order to the delivery of goods. Discuss the integration points with other ERP modules throughout this process.	(14)	4	3

15. (a)	Examine how ERP systems are adapting to support remote work environments, focusing on cloud-based solutions and mobile accessibility? Discuss the benefits and challenges associated with this trend.	(14)	5	3

(OR)

(b)	Discuss the role of Internet of Things (IoT) devices in enhancing the capabilities of ERP systems, particularly in the areas of inventory management and supply chain optimization. Provide examples of IoT applications in ERP.	(14)	5	3

PART- C (1x 10=10Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16	Analyze the impact of Artificial Intelligence (AI) and Machine Learning (ML) integration into ERP systems. Evaluate how do	(10)	5	5

these technologies enhance predictive analytics and decision-making processes within organizations?