



INDIAN INSTITUTE OF MATERIALS MANAGEMENT  
Post Graduate Diploma in Materials Management- 2 years

DEC 2025

PAPER No. 18(Enrollment code PGMM)

Emerging Trends in MM

Date : 22.12.2025  
Time : 2.00 p.m. to 5.00 p.m.

Max. Marks : 70  
Duration : 3 Hrs.

**Instructions:**

1. From Part A – answer all questions (compulsory). Each sub questions carries 1 mark. **Total : 20 Marks**
2. From Part B – Answer any 3 questions out of 5 questions. Each question carries 20 marks. **Total : 30 Marks**
3. Part C is a case study (compulsory) with questions. Read the case study carefully and answer the questions **Total: 20 Marks**

**Part – A**

**20 Marks**

**(Attempt all questions. Each sub question carries 1 mark.)**

**Q.1 Select the right answers from the given choices [5 marks]**

- 1) Which of the following technologies is most associated with real time tracking in Materials Management  
*a. Block chain      b. RFID      c. ERP      d. AI*
- 2) Which system integrates all functions of an organisation including MM into a single software  
*a. SCM      b. ERP      c. CRM      d. TQM*
- 3) \_\_\_\_\_ Analysis involves taking care of finances and cutting costs for running the organization  
*a. Financial trend      b. Market trend      c. Inventory      d. Utility trend*
- 4). \_\_\_\_\_ involves using techniques that assist in spotting, digging out and investigating the best data  
*a. knowledge processing      b. Business Intelligence      c. Business processing      d. data Processing*
- 5) IoT involves usage of \_\_\_\_\_ that are capable of understanding the human's movement in the environment  
*a. sensors      b. Modems.      c. Switches      d. Printers*

**Q.2. State True or False [5 marks]**

- 1) JIT minimizes inventory by receiving materials only when needed
- 2) The service provided by KPO include customer care, telemarketing and technical support with the help of voice processes
- 3) Interest rates, taxes and inflation are economic factors that influence business
- 4) E Retailing is a form of electronic commerce, which allows customers to buy goods through the internet
- 5) Green supply chain management focusses on sustainability and environmental impact

**Q.3 Abbreviations – expand it [5 marks]**

- 1) KPO      2) BPO      3) GSCM      4) EDI      5) VMI

**Q.4 Fill in the blank [5 marks]**

- 1) The adoption of -----technology in MM enables automatic identification and tracing of materials through out supply chain

- 2) The use of -----helps organisations to analyze large volumes of data to forecast demand and optimize inventory levels
- 3)The integration of -----and robotics in ware house operations lead to higher accuracy and reduced manual intervention
- 4) M commerce refers to the process of performing business transaction using an hand held \_\_\_\_\_devices that connected to the wireless network
- 5) ----- Technology ensures data transparency ,traceability and Security across all transactions in the Supply chain

## PART B

**30 marks**

**(Attempt any 3. Each question carries 10 marks)**

- Q.5 a)** Explain the concept of BPO ( Business Process Outsourcing). Discuss its advantage **[5 marks]**  
**b)** What is Knowledge Process out sourcing. How it differ from BPO **[5 marks]**
- Q. 6. a)** Explain any three key design principles of Industry 4.0 **[5 Marks]**  
**b)** Discuss two major technical solutions used in implementing Industry 4.0 **[5marks]**
- Q.7. a)** Explain the role of IT in supply chain and logistics **[5 marks]**  
**b)** Explain the purpose and key components of an information Technology Frame work **[5marks]**
- Q.8. a)** Distinguish between business intelligence and Artificial Intelligence **[5 marks]**  
**b)** Explain the concept of aggregators **[5marks]**
- Q.9 Write short notes on any two [2 x5= 10 marks]**
- a) Digitization and automation
  - b) Data Analytics
  - c) E Procurement
  - d) JIT and lean practices

## PART C

**20 marks**

### **Q. 10. Case study – Compulsory**

TechFab industries limited, a medium sized manufacturing company produces precision components for electronic sector. For two decades company followed traditional materials management practices- manual inventory control, limited automation in warehousing. However increase in competition, fluctuating raw material costs and pressure for faster delivery pushed the management to re think its strategy.

Techfab decided to adopt modern technologies and practices to reduce lead time, minimize waste and increase responsiveness to customer demands

Implemented IoT and RFID tracking, AI for demand forecasting, Green Materials Management practices, Supplier Relationship management, automation and Robotics in warehousing

In three years' time Inventory turnover improved from 3.2 to 5.1, Procurement cycle time improved from 10 days to 6 days. Stock accuracy from 82% to 97%. Wastage from 9% to \$% Customer on time delivery 87% to 96%. Company faced resistance from employee to adopt digital tools. High initial costs , Need for continuous training were the challenges. Integration of legacy system to ERP is also bottleneck.

Questions:

1. What are the emerging trends in MM highlighted in this case
2. How did IoT and AI helped to improve operational efficiency
3. Elaborate the importance of sustainable initiative is MM
4. Strategies to overcome challenges.
5. Suggestions for further improvement

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