



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

PAPER No. 19(enrolment code- PMM) [ONLINE EXAM]

Dec 2023

Emerging Trends in MM

Date : 20.12.2023
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 10 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) Any kind of commercial transaction that is completed through the internet is known as
 - a. E commerce
 - b. B2B
 - c. C2C
- 2) 'Digital Purchase order software refers to software that allow users to create and send purchase orders
 - a. Cloud based
 - b. ERP based
 - c. Bar code based
- 3) The period of 1800, that involved the use of mechanical Production facilities that introduced steam powered M/c.
 - a. Industry 4.0
 - b. Industry 2.0
 - c. Industry 1.0
- 4). IoS is to systematically use the internet for creating value in the area -----
 - a. Service sector
 - b. Public sector
 - c. Private sector
- 5) An Innovation that can change the methods of operating business firm and industries
 - a. Disruptive Technologies
 - b. Digital technology
 - c. value engineering

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

- 1) A high inventory turnover means that less capital is locked up in the inventory
- 2) Bringing standard materials and components into product design helps in improving the overall production process and bringing down costs
- 3) Purchasing decisions have a direct impact on organization's cost control and inventory management
- 4) Bulk purchasing is one of the most economical forms of purchasing methods
- 5) Indirect material costs are referred to cost of input that go directly into producing products

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

- 1) KPO
- 2)BPO
- 3) ERP
- 4)B2B
- 5) AI

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

- 1) Organizations have acknowledged that economic of scale can be attained if the----- decisions are done wisely
- 2) Robots are used for handling,-----, and performing operations
- 3).IoS is capable of building a ----- that can efficiently host a wide range of service products
- 4). Industry 4.0 technologies help business organizations in achieving _____growth
- 5.The types of E - commerce models include Business to Business, Business to customer, customer to customer and_____.

PART B **(30 marks)**
(Attempt any 3. Each question carries 10 marks)

- Q.5 a)** Explain the concept of Mobile commerce (M commerce) **[5 marks]**
 b) Discuss the difference between E commerce and M commerce **[5 marks]**
- Q. 6. a)** Explain the concept of digital economy **[5 marks]**
 b) Describe the merits and demerits of digital economy **[5 marks]**
- Q.7.a)** Explain the meaning and characteristics of BPO **[5 marks]**
 b) List the objectives of BPO **[5 marks]**
- Q.8. a)** Explain the meaning of E - retailing **[5 marks]**
 b) Discuss E retailing in India **[5 marks]**
- Q.9 Write short notes on any two [2 x 5 = 10 marks]**
- a) IoS. (Internet of services). b) Types of Material handling equipment
 c) Cost reduction techniques .d) Role of purchase department

PART C **(20 marks)**

Q. 10. Case study – Compulsory

A large scale manufacturing conglomerate started in 19th century. Their reputation for superior engineering skills spans a variety of categories , such as consumer goods, Precision Manufacturing, infrastructure development. Despite its stabilized reputation the company found itself wrestling with significant production inefficiencies. They were not equipped to handle higher priority orders effectively due to lack of insight into machine availability and inability to adjust machine schedules properly. The entire manual infrastructure lacked the agility to adapt to unforeseen deviations in the production schedule.

The major influencing factors are :

Over dependency / Reliance on spreadsheets for machine planning and scheduling

Absence of system for Machine availability , difficulty in recalculation and rescheduling, scaling up production capacity to match the growing demand

Partnering with a consulting company the manufacturing embarked on a digital transformation journey to leverage Google cloud platform best in class infrastructure. The goal was to develop a centralized platform solution that drastically reduced human dependencies in production planning and scheduling.

Regarding the need to abolish data silos, company consolidated data , creating unified view of inventory level, Machine capacities and production times. This helped in accessing centralized data and end to end visibility (status of ongoing operation like machine performance , production progress or any unforeseen events or disruptions).

Seamless data sharing (data Integration channel like ERP and manufacturing execution systems using better collaboration among teams). Used linear programming techniques capable of predicating machine availability and optimising production schedules. Data visualization dash boards installed in all departments.

The above modifications/ improvements helped the company to improve operational efficiency.

Questions: (4X 5= 20 marks)

1. What are the problems faced by the company
2. What were the influencing factors affecting the company's performance
3. What are improvements implemented in the company
4. Outcome of the improvement implementation.
