INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Materials Management- 2 years

PAPER No.24 (enrolment code –CPM)
PAPER No. 19(enrolment code- PMM)[OFFLINE 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) E commerce refers to application of _____ in various businesses

   a. IT   b. .BPO   c. KPO

   2) 'IoT involves usage of _____ that care capable of understanding the human movement in the environment

   a. Sensors   b. Modems   c. Switches

   3) Digital purchase order software refers software that allow users to create and send purchase orders

   a. Cloud based   b. ERP based   c. Bar core based

   4) Digital economy refers to an economy that focus on ------------- technologies

   a Analog   b. Digital   c. Numerical

   5) ---------Involves using techniques that assist in spotting, digging out and investigating the best data

   a. Knowledge processing   b. Business intelligence   c. Business processing

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

  1) Bulk purchasing is one of the most economical form of Purchasing methods

  2) Indirect material costs are referred to cost of input that goo directly into producing products

  3) E retailing is a form of Electronic Commerce, which allows customers to buy goods through internet

  4 .KPO helps their clients with advanced analytical and specialized skills in the areas of business operations

  5) Industry 4.0 focuses on adopting automation to achieve operational efficiency of modern business organizations

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

   1) ERP   2)AI   3) CTA   4) EoM   5) SMM

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

  1. Social Networking sites are considered as one of the most powerful _____ for marketers

  2. . --------- factors include social standards , beliefs, ethnicity, tradition, social attitudes and social institutions and

     demographics

  3. In BPO_____ services are responsible for resolving customer queries related to customer banks account status,

order status and product information

4. Digital economy is an umbrella term that is used to describe the market focusing on -------techniques

5. _____ refers to a mode of business expansion that is characterized by a trade mark, license, payment of fees and significant control

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

Q.5 a) Explain the Industry 4.0 environment   **[5 marks]**

  b) Explain the Industry 4.0 components   **[5 marks]**

Q. 6. a) What are the objectives of material handling equipment and types   **[5 marks]**

  b) Explain the objectives of a good plant layout   **[5 marks]**

Q.7 a) Describe the inventory management of perishable goods   **[5 marks]**

  b) Explain ABC analysis   **[5 marks]**

Q.8. a) Explain the concept of Business trends   **[5 marks]**

  b) Discuss various factors influencing business trends   **[5 marks]**

Q.9   Write short notes on any two   **[2 x 5 = 10 marks]**
  a) IoS. (Internet of services).   b) Types of Inventory and models
  c) Material Cost reduction   .   d) Role of purchase department

PART C   [20 marks]

Q. 10. Case study – Compulsory

In the present scenario, ensuring air quality level through monitoring Pollutants are major challenges faced by various cities in India. They are keeping open eye on both aspects including monitoring and managing effects of air quality due to various pollutants.

Smart sensors are being used for measuring the impact of wide range of pollutants . It provides data about various gaseous emissions including NO, NO_2, CO, CO_2, O3 etc and pollution matters such as PM1, PM 2.5 and PM 10. Additionally it also provides reliable data collection through smart sensors that are connected with a smart sensor dashboard. Smart sensors basically uses 3G or WI-Fi connectivity to upload data from the connected sensors.
Few companies have developed an IoT based sensor that is energy efficient . It is capable of finding a solution for off grid that can be installed at any location. The newly developed sensors can use solar power. This will allow sensors to be installed in more locations, while keeping the installation and operating cost low.

Smart sensors provide many advantages to the users. The data collected will be accurate and any location suffering from high pollution can be monitored efficiently. It also offers flexibility and easy to install at multiple locations. These installations are connected to a battery back up and all required data can be collected as needed. Retrieval is also easy from the database.
The cost of maintenance and installation are lower due to the highly efficient system used in the installation.

Questions:
1. What are the functions of a Smart sensor
2. What are the advantages of using smart sensors
3. Explain the concept of IoT
4. Is it cost effective to install smart sensors and what type of back up provided while installation

----