



**INDIAN INSTITUTE OF MATERIALS MANAGEMENT**  
**Post Graduate Diploma in Materials Management– 2years**  
**Post Graduate Diploma in Logistics & SCM**  
**Paper 5 [ONLINE EXAM]**  
**(Enrollment code: PGMM, PGSM)**  
**Business Analytics**

**June 2024**

**Date: 13.06.2024**  
**Time: 2.00 pm to 5.00 pm**

**Max. Marks 70**  
**Duration 3 hours**

**Instructions**

1. Part A is compulsory. Each sub question carries one mark.
2. In Part B answer any 3 questions. Each question carries 10marks
3. Part C is a case study with sub questions and it is compulsory.

**Total marks-20**  
**Total marks-30**  
**Total marks-20**

**PART A**

**(20 marks)**

**Q.1. Fill in the blanks.**

**[ 5 marks]**

- a. Data Redundancy refers to \_\_\_\_\_ of data.
- b. Smallest unit of information in a table is a \_\_\_\_\_.
- c. Dynamically regulating the use of computing resource is \_\_\_\_\_ computing.
- d. Figuring out external impact on the business can be done through \_\_\_\_\_ analysis.
- e. Most commonly utilized efficient business analysis practices are compiled by \_\_\_\_\_.

**Q.2 State True or False**

**[ 5 marks]**

- a. At the core of business operations is data.
- b. Data science does not use statistical techniques.
- c. A random variable with an infinite and uncountable range is a discrete variable.
- d. An experiment with two possible outcomes is Binomial.
- e. Point estimate is an estimate of a single value of unknown population parameter.

**Q.3 Tick the correct option:**

**[ 5 marks]**

- a. What is the full form of ANOVA?
  1. Analysis of Variance
  2. Analysis of Values
  3. Analysis of Variables
  4. Caps Separated Values
- b. DSS stands for
  1. Data Statistics System
  2. Decision Support System
  3. Data Statistics Sentence
  4. Data Support Status
- c. Ipro provides wireless services in
  1. UK
  2. Canada
  3. USA
  4. Australia
- d. Indexed accessing of data is allows by \_\_\_\_\_.
  1. DBMS
  2. DOLAP
  3. MOLAP
  4. OLPT
- e. Amongst which of the following is the true about regression analysis?
  1. Describes associations within the data
  2. Modelling relationships within the data
  3. Develops meaningful sights among the data.
  4. All of the mentioned above

**Q. 4 Expand the following:****[ 5 marks]**

- a. OIG                      b. CRY                      c. PESTEL                      d. MTBF                      e. ROA

**PART B****[30 marks]****(Answer any three. Each question carries 10 marks)**

- Q. 5 What is WEB Analytics? Explain with one example. **[10 marks]**  
Q. 6 Discuss the barriers in implementation of KPIS. **[10 marks]**  
Q. 7 What are neural networks? Explain their different types **[10 marks]**  
Q.8 Give the overview of Linear Programming. **[10 marks]**  
Q. 9 Discuss any four tools in visualizing and exploring data using Excel. **[10 marks]**

**PART C****[20 marks]****Q. 10 Case Study (compulsory)**

In today's business environment, a lot of data is produced on a daily basis. This is true for all business industries. In case of the retail industry, the data produced relates to emerging trends and sales, changes in the global market, etc. This data can be used effectively by gathering, measuring, and reporting on it. This data can be stored and analysed effectively by using a Business Intelligence system. The concerned retail outlet may choose to implement a traditional sales and trends analytics BI system or may use an advanced BI system that provides a predictive outlook.

The BI tools help retail outlets increase their sales by understanding customer needs, optimising prices and current trends, predicting upcoming trends, etc. It has been predicted that by 2020, the sales of e-Commerce retail will reach \$4 trillion. A large number of retail brands are now increasingly using BI tools, such as Artificial Intelligence(AI)and customer service bots. Major challenges faced by retailers include tracking merchandise, organising, shipping, managing suppliers ,and identifying customer behaviour.

Fiverr is an e-Commerce shopping site that sells services. In order to boost its sales, they decided to use Sisense's BI tool. This tool helped them combine data from Google Docs, spreadsheets, and analytics to track events on their website and mobile app. With an increase in the user base, Fiverr's needs also increased. Fiverr required the BI tool to track the user behaviour in real time. Before implementing the BI tool, Fiverr was gathering user data from various sources. Now, Fiver is using Sisense's BI tool to analyse data and to determine away forward. The use of BI tools helped Fiverr in creating and maintaining an agile environment that could support speedy and smart decision-making based on the user behaviour data.

E-Commerce retailers need to optimize their products and their prices based on the trends and customers' past purchases. Therefore, it becomes important to generate trend and price reports on a real-time basis using BI tools. Such practices help a retailer in improving its market positioning. This claim can be validated by a CIO study, according to which 19% of executives claimed that real-time data analysis helped them immensely.

Retailers also use BI for fulfilling their in-store needs and make decisions. Some of the e-Commerce platforms, such as Amazon, Flipkart, etc., offer a variety of products all over the world in multiple markets. In such circumstances, things often get complicated because these platforms need to gain an understanding of what products are selling and where they are selling. Also, since these platforms sell in multiple markets, these become harder to track.

**Questions:**

- a. What are the possible challenges faced by Fiverr in using BI tools?  
b. How do BI tools help retail outlets?