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

June 2025

Date: 19.06.2025
Time: 2.00 p.m to 5.00 p.m

Max. Marks 70
Duration 3 hours

Instructions

1. Part A is compulsory. Each sub question carries one mark. **Total marks-20**
2. In Part B answer any 3 questions. Each question carries 10marks **Total marks-30**
3. Part C is a case study with sub questions and it is compulsory. **Total marks-20**

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PART A   (Total 20 marks)

Q. 1. Fill in the blanks   **[5 marks]**

   a) Data, Information, and Knowledge are in a -------------- order of topics

   b) ----------- tries to forecast on the basis of past data

   c) Facebook is a ----------- social networking channel

   d) A ------------ is a subset of a population.

   e) A ------------- depicts data in the form of horizontal bars.

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

   a) Qualitative data can be either discrete or continuous.
   b) Business analytics professionals focus on data and statistical analysis
   c) Programmed decisions follow a repetitive practice.
   d) Visual images help to transmit a huge amount of information.
   e) Big data comprises only structured forms of data.

Q. 3. Match the following: **[5 marks]**

	Column A		Column B
A	Unstructured data	1	Developing effective strategy
B	Big data platform	2	G. B. Dantzig
C	Game Theory	3	Hadoop
D	Causal relationships between data sets	4	Text messages
E	Simplex method	5	Diagnostic analytics

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

   a) DBMS   b) BABOK   c) AHP   d) ETL   e) MTBF

PART B   (Total 30 marks)

(Answer any three. Each question carries 10 marks)

Q.5.a) Business analytics (BA) is a sub-set of Business intelligence (BI). Do you agree with this statement. Explain the main points about the two concepts with suitable examples.   **[5 marks]**

   b) With the increase in adoption of analytics in business, many new job roles have emerged for business analytics professionals. Elaborate on some of these new roles and the responsibilities in these roles.   **[5 marks]**

Q.6. a) Analysis of Variance (ANOVA) has an advantage over t-test when one wants to study the variations in a larger number of population (three or more). Explain how ANOVA helps in studying the different types of variances and why it is preferred instead of multiple t-tests.   **[5 marks]**

b) Explain the terms "Online Transaction Processing (OLTP)" and "Online Analytical Processing (OLAP)". Bring out the points of differences between the two concepts and their areas of applications.
                                                                                                          [5 marks]

Q.7. a) Data warehouses are used to store huge amounts of data which help organizations in decision-making and fulfill their information-related requirements. In this context, explain the benefits of implementing data warehousing.   **[5 marks]**

b) The performance of a model needs to be evaluated using various quantifiable metrics in order to understand how well the model is performing. In this context, discuss some of the commonly used metrics across various applications.   **[5 marks]**

Q.8. a) What do you understand by the term "Neural networks"? Explain the different types of Neural Networks.
                                                                                                          [5 marks]

b) Key Performance Indicators (KPIs) serve as measurable metrics that help organizations evaluate their performance. Explain this statement indicating the key roles played by KPIs in business.   **[5 marks]**

Q.9. Write Short Notes **(any two).**   **[2 x 5 =10 marks]**
   a) Web Analytics   b) Network Models with Yield
   c) Online Analytical Processing   d) Emerging Trends in Business Intelligence and Business Analytics

PART C   `   (20 marks)

Q.10 Case Study (compulsory)

ABC Ltd, a media company in the streaming business, has been using advanced machine learning algorithms as the powerhouse to drive its highly acclaimed recommendations engine. The system studies in depth the individual's viewing histories, preferences, and interactive behaviors such as pausing or rewinding etc. This is done in order to provide customized content suggestions for each individual user. By doing this ABC hopes to enhance the individual's viewing experiences to personal tastes, and enhance the user engagement and satisfaction. With such personalization, ABC hopes to facilitate the subscribers to discover content that suits their preferences, resulting in their increasing the time they spend on the platform and a deeper attachment with the ABC brand.

Additionally, ABC employs a strategic content development and acquisition approach. It identifies trends and preferences in viewer behavior, such as popular genres or series, to formulate its decisions on what new content to create or purchase. Using Business Analytics ABC tries to ensure that its content library continuously evolves to match the preferences of its audience, maximizing viewer satisfaction and engagement. Moreover, this data-driven strategy enables the company to invest in projects more likely to succeed and appeal to its user base, optimizing its return on investment. Through these sophisticated analytics and machine learning applications, ABC retains its position as a leader in the streaming industry. It sets the standard for media companies leveraging data to revolutionize user experience and drive business success.

Questions

(a) Which Business Analytics (BA)/Business Intelligence (BI) tools are being employed by ABC in their business? Explain the relevance of these tools.   **(7 marks)**

(b) Do you think ABC has been able to leverage BA successfully in improving their business performance?
                                                                                                          (6 Marks)

(c) Has ABC been able to set a benchmark for media companies in the streaming industry? Give your comments**.**
                                                                                                          (7 Marks)