



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management– 2years
Post Graduate Diploma in Logistics & SCM
Paper 21(Enrollment code : CPM, CPS)
Business Analytics [OFFLINE EXAM]

Dec 2023

Date: 21.12.2023
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)
[5 marks]

1. Fill in the blanks.

- a. The results obtained using correlation is known as correlation coefficient and is represented by _____
- b. _____ is a technique used to source data from a data warehouse or data mart.
- c. _____ Business Intelligence uses graphs and other illustrations to keep track of an organisation's performance of the earlier period as well as future terms.
- d. _____ is a set of the data that might or might not have any logical or repeating pattern.
- e. Using _____ , scientists make machines or software to think intelligently like humans.

2. State True or False

[5 marks]

- a. Business Analytics are statistics applied to the business world in an effort to improve people's decision making in fields such as marketing research, operations, finance, and advertising.
- b. Asking customers at the shopping mall about their voting intentions in the upcoming political election is an example of secondary data.
- c. In presentation layer, the data stored within the data infrastructure is transformed to information that can be analysed further.
- d. Sentiment analysis (customer behaviour) is not possible through Data Science.
- e. Dissimilar levels of information sparseness, density, freshness and quality affect the capability to unify the data and require increased sophistication.

3. Tick the correct option:

[5 marks]

- a. What is the full form of CSV file
 - i. Colon Separated Values
 - ii. Context Separated Values
 - iii. Comma Separated Values
 - iv. Caps Separated Values
- b. Which statistic offers a bounds on our estimate of the impact of an X variable on the Y variable?
 - i. T-statistic
 - ii. R-squared
 - iii. P-value
 - iv. 95% confidence interval
- c. As you put together a forecasting model, it is important to remember that sales forecasting is __.
 - i. an exact science
 - ii. not an exact science
 - iii. not faulty or full of skepticism
 - iv. a true means to the future

- d. Analyzing the _ performance of a company allows financial statement users to understand _ performance of a company.
 - i. historical; past
 - ii. historical; future
 - iii. present; future
 - iv. present; past
- e. Amongst which of the following is the true about regression analysis?
 - i. Describes associations within the data
 - ii. Modelling relationships within the data
 - iii. Answering yes/no questions about the data
 - iv. All of the mentioned above

4. Expand the following:

[5 marks]

- a. XMI
- b. CWM
- c. PESTEL
- d. OLAP
- e. AI

PART B

[30 marks]

(Answer any three. Each question carries 10 marks)

- 5. What do you understand by Business Intelligence? Explain the need of Business Intelligence for an organization.
- 6. Discuss PEST Analysis model. Explain the benefits of PEST analysis.
- 7. What do you understand by ANOVA and hypothesis testing? Also explain Type -I and Type -II error.
- 8. Discuss the difference between structured, unstructured and semi-structured data with suitable examples.
- 9. Explain OLAP. Also explain the different architectures of OLAP – ROLAP, MOLAP and HOLAP.

PART C

[20 marks]

10. Case Study (compulsory)

Domino's has consistently led the way in digital innovation. The pizza distributor's early investments in reliable e-commerce and mobile commerce systems that make it simple for customers to order pizzas are largely responsible for its success.

To do this, DBi created a tailored BigQuery solution to store and query Domino's enormous datasets quickly, effectively, and affordably. Domino's may regularly export raw data to a BigQuery project by using the BigQuery export function in Google Analytics Premium. Daily automatic uploads of CRM data into the BigQuery database on the Google Cloud are made possible using a protected FTP site and the BigQuery API.

Following the aforementioned procedure, transaction IDs made it simple to combine CRM data with digital data from Google Analytics. BigQuery's processing speed of terabytes of data per second makes reporting queries simple to create and automate. For instance, a study of client types by marketing channel indicates which marketing channels or keywords have the most impact on certain consumer categories.

Questions:

- a. Explain the role of business analytics in further growth of Domino's?
- b. Do you think that predictive analytics will help to increase the consumer base of the Domino's? Justify your answer.
