

7.7

Reg. No.																			
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code	11967
---------------------	-------

**M.B.A - DEGREE EXAMINATIONS, APRIL / MAY 2023**  
Second Semester

**Master of Business Administration**  
**20MBT207 - INFORMATION SYSTEMS AND BUSINESS ANALYTICS**  
(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**  
Answer ALL Questions

- |   | <i>Marks,</i><br><i>K-Level, CO</i> |
|---|-------------------------------------|
| 1. Justify the relationship between data and information with an example.                     | 2,K3,CO1                            |
| 2. Recall the types of information system.  | 2,K1,CO1                            |
| 3. Relate the term data integrity.  | 2,K2,CO2                            |
| 4. Paraphrase the term data warehousing.  | 2,K1,CO2                            |
| 5. Recall big data and list out its characteristics.  | 2,K2,CO3                            |
| 6. Contrast between nominal and ordinal data.   | 2,K1,CO3                            |
| 7. Give two reasons why machine learning is important.  | 2,K3,CO4                            |
| 8. Differentiate between Predictive analytics and Prescriptive analytics.                     | 2,K3,CO4                            |
| 9. Paraphrase the term Data exploration.  | 2,K1,CO5                            |
| 10. Substantiate with two examples why data visualization is important in Business analytics. | 2,K3,CO5                            |

**PART - B (5 × 13 = 65 Marks)**  
Answer ALL Questions

11. a) Discuss various types of system development methodologies and suggest a methodology which is widely in use for systems development presently. 13,K5,CO1
- OR**
- b) Explain the various types of Operations support systems and Management Support Systems. 13,K4,CO1
12. a) Elaborate the concurrency problem in transactions and also the control techniques adopted. 13,K5,CO2
- OR**
- b) Explain the types of database security systems used by various companies to avoid data manipulation. 13,K4,CO2
13. a) Explain the need and scope of Business Analytics and also differentiate how Business Analytics is from Business Intelligence. 13,K4,CO3

*K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create*

**11967**



**OR**

b) Define Data Mining and also explain the process of data mining in detail. *13,K4,CO3*

14. a) Discuss the steps involved in Machine Learning and also elaborate on the types of ML. *13,K5,CO4*

**OR**

b) Explain Web Analytics with the process along with the benefits of using web analytics. *13,K4,CO4*

15. a) Elucidate the steps involved in data exploration and preparation. *13,K4,CO5*

**OR**

b) How dashboards are different from scorecard? Explain in detail. *13,K4,CO5*

**PART - C (1 × 15 = 15 Marks)**  
**(Compulsory)**

16. a) **MIS Case:** *15,K5,CO6*

At a restaurant, a new information system is installed to improve the performance of the main business activities. The system includes a main server holding the restaurant management application for sales and accounting. A back office computer is used by the manager and handled devices, connected through WIFI technology to the server, are used by the waiters.

Waiters take the order on their handled device, equipped with a point of sale software and touch screen to take the order as fast and accurate as possible. Once taken, the order is printed out directly in the kitchen and recorded in the accounting system.

When closing a table, the waiter can automatically print the invoice on one of the three printers existing in the restaurant main floor. With this new system the customers are better served by delivering their orders and preparing the invoice quickly and with the minimum possibility of mistakes.

At the end of the day, the manager can print out a detailed report of all the invoices with the necessary details of the items ordered, the amount collected from customers, and a list of the purchases to be made according to the sales.

**Questions:**

- What type of information system (according to the management groups) is used in this case?
- What strategic business objective(s) could be addressed by this system?
- What is the technology components used in this case?