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Question Paper Code	12860
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MBA - DEGREE EXAMINATIONS, APRIL / MAY 2024

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

	Marks	K- Level	CO
1. Justify the relationship between data and information with an example.	2	K2	CO1
2. State the features of Decision Support System.	2	K1	CO1
3. Restate ACID properties.	2	K2	CO2
4. Paraphrase the term data mart.	2	K2	CO2
5. Distinguish between BI & BA.	2	K2	CO1
6. List out the 4 types of data analytics.	2	K1	CO1
7. Recall Machine learning.	2	K1	CO2
8. Write a note on Decision Analytics.	2	K1	CO2
9. Comment on the advantages of data visualization.	2	K2	CO1
10. State the importance of Data Preparation.	2	K1	CO2

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	K4	CO1
OR			
b) Explain the various types of Operations support systems and Management Support Systems.	13	K4	CO1
12. a) Explain in detail, Data Models and types with diagrams.	13	K5	CO2
OR			
b) Justify the need for data warehousing and also explain the different types of data warehousing techniques.	13	K5	CO2
13. a) For analyzing big data, machine learning uses different approaches. Explain the approaches in detail.	13	K4	CO3
OR			
b) Explain the most common data types and also explain the common types of data distribution.	13	K5	CO3
14. a) Optimization is the backbone of machine learning. Justify?	13	K5	CO4

OR

b) Explain the steps involved in descriptive analytics and also explain the tools used in descriptive analytics. 13 K5 CO4

15. a) How dashboards are different from scorecard? Explain in detail. 13 K4 CO5

OR

b) Summarize the term dashboard highlighting the benefits and design tips to get started. 13 K4 CO5

PART - C (1 × 15 = 15 Marks)

(Compulsory)

16. a) **Business Intelligence Management** 15 K5 CO5

You are working for a sporting goods retail company. Overall sales have been declining for the last three quarters and management is very much concerned. Each retail store has its own individual databases that keep track of sales for specific items. However, at the overall management level, only sales figures for each store are reported. Management has asked you to prepare reports by sale items (such as specific brand X and model Y of running shoes) and by categories of sale items (such as all running shoes) so that they can make accurate decisions on which product lines to drop to reduce overall inventory costs. As a BI specialist or as a part of a development team, you will need to develop a procedure to extract data from each individual database, reconcile data formats and types, aggregate all data into a data repository, and develop queries based on management requests. You will communicate and work closely with management representatives to ensure that the created data repository and reports meet their needs. This usually involves a series of back-and-forth discussion during which both sides ask and answer questions. You have to develop a good understanding of the business concerns and be able to frame them into technical requirements for the BI project. You also need to educate management regarding possibilities and constraints of the technology as it translates into business applications. Depending on your level of responsibilities, you will develop or contribute to the development of a realistic estimate of time, resources and cost to achieve the intended goal. Once the project is launched, you will develop full specifications, develop and test subsystems, and integrate into final product. Throughout the development process, you will conduct a series of increasingly rigorous technical, functional and user tests. Based on the results of these tests, you can expect revision of technical specifications, and overall system and unit design, along with project timeline, resources and cost revisions. Of particular importance will be a focus on user needs and requirements, business applications, and easy-to-use user interface. Your BI team may be also invoked in developing and delivering training to managers and other stakeholders in using the new system.

Questions:

1. What are basic technical requirements for the BI project?
2. Explain the procedure to extract data from each individual database.
3. What role does BI specialist play in management company?
4. What all factors will lead to reduction of the inventory cost?