



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Master's Degree Examination – June 2021
IV Semester

Class : II MBA
Major : Master of Business Administration/MBA-IT

Time: 3 Hours
Max. Marks: 100

17MBAC27/17MBMC27 Business Intelligence and Analytics

PART A
Choose the Correct Answer

10 x 1 = 10

- comprises the strategies and technologies used by enterprises for the data analysis of business information. CO1, K1
a. Modern Business intelligence b. Data Business intelligence
c. Business intelligence d. Real Time Business intelligence
- A ----- is a subset of a data warehouse oriented to a specific business line. CO1, K1
a. Data mart b. Data Warehousing c. Data mining d. Data processing
- A ----- is constructed by integrating data from multiple heterogeneous sources that support analytical reporting, structured and/or ad hoc queries, and decision making CO2, K2
a. Data mart b. data warehouse c. Data mining d. Data processing
- is a process used by companies to turn raw data into useful information. CO2, K2
a. Data marking b. Data Warehousing c. Data mining d. Data
- is the process by which businesses use statistical methods and technologies for analyzing historical data in order to gain new insight and improve strategic decision-making CO3, K3
a. Business Decision b. Business information
c. Business data d. Business Analytics
- Decision Tree which has a categorical target variable then it called a ----- CO3, K3
a. Classical variable decision tree b. Categorical variable decision tree
c. Continuous variable decision tree d. Capital variable decision tree.
- A ----- is a series of algorithms that endeavors to recognize underlying relationships in a set of data through a process that mimics the way the human brain operates. CO4, K4
a. Neural network b. Cross network c. Company network d. Artificial network
- A ----- is a decision support tool that uses a tree-like model of decisions and their possible consequences, including chance event outcomes, resource costs, and utility. CO4, K4
a. Decision tree b. Algorithm c. network d. learning network
- is the process of Data Mining techniques to automatically discover and extract information from Web documents and services. CO5, K5
a. Data intelligence b. Web Mining c. Data mining d. Data encryption
- is the process of discovering interesting and previously unknown, but potentially useful patterns from large spatial datasets. CO5, K5
a. Trend analysis b. Spatial Data Mining c. Trend analysis d. Data mining

Part B
Answer ALL questions
Each answer should not exceed 400 words or two pages

5 x 6 = 30

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| 11. a. Describe the factors influencing business intelligence system. | CO1, K1 |
| (or) | |
| 11. b. List out the types of business intelligence. | CO1, K1 |
| 12. a. Identify the process of data warehousing. | CO2, K2 |
| (or) | |
| 12. b. Distinguish between the data warehousing and data mining. | CO2, K2 |
| 13. a. Write short note on 'Market Basket analysis'. | CO3, K3 |
| (or) | |
| 13. b. Show the Pruning techniques. | CO3, K3 |
| 14. a. Point out the concept of neutral networks. | CO4, K4 |
| (or) | |
| 14. b. Write short note on 'Historical Clustering'. | CO4, K4 |
| 15. a. Estimate the structure of data mining. | CO5, K5 |
| (or) | |
| 15. b. Evaluate the concept of data mining. | CO5, K5 |

Part C
Answer ALL questions
Question No.20 Case is Compulsory
Each answer should not exceed 800 words or four pages

5 x 12 = 60

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| 16. a. Examine the business intelligence applications. | CO1, K1 |
| (or) | |
| 16. b. Enumerate the role of business intelligence in modern business. | CO1, K1 |
| 17. a. Summarize the issues and challenges in Data Mining. | CO2, K2 |
| (or) | |
| 17. b. Explain the Data ware housing architecture. | CO2, K2 |
| 18. a. Analyze the classification of decision trees. | CO3, K3 |
| (or) | |
| 18. b. Examine the types of data. | CO3, K3 |
| 19. a. Explain the basic steps in general algorithms. | CO4, K4 |
| (or) | |
| 19. b. Summarize the types of web mining. | CO5, K5 |

20. Case Study: (Compulsory question)

DATA WAREHOUSE IMPLEMENTATION PHASES

Permanently decreasing ability to react quickly and efficiently to new market trends is caused by increase in competition on the market. Companies become overcrowded with complicated data and if they are able to transform them into useful information, they will have the advantage of being competitive.

It is familiar that the strategic level of decision-making usually does not use business information on a daily basis but instead, cumulative and derivative data from specific time period. Since the problems being solved in strategic decision-making are mostly non-structural, it is necessary in decision-making process to consider the large amounts of data from elapsed period, so that the quality of decision-making is satisfied. Therefore, Data Warehouse and Data Mining concept are imposed as a good base for business decision-making. Moreover, the strategic level of business decision-making is usually followed by unstructured problems, which is the reason for data warehouse to become a base for development of tools for business decision-making such as the systems for decision support. Data warehouse as a modern technological concept actually has the role to incorporate related data from vital functions of companies in the form that is appropriate for implementation of various analyses.

Current situation analysis selecting data interesting for analysis, out of existing database

Filtering and reducing data Extracting data into staging database Selecting fact table, dimensional tables and appropriate schemes Selecting measurements, percentages of aggregations and warehouse methods Creating and using the cube .The description and thorough explanation of the mentioned phases is to follow:

CURRENT SITUATION ANALYSIS

Computer system of FOS Student's Service Dept. was implemented at the beginning of nineties but it has been improved several times since then with the aim to adapt it to the up-to-date requests. This system fully satisfies the complex quality requests of OLTP system, but it also shows significant OLAP failures. Data are not adequately prepared for complex report forming. The system uses dBASE V database that cannot provide broad range of possibilities for creating complex reports. dBASE V does not have special tools for creating queries that are defined by the users. Design documentation is the most important in selecting of system information and data used for analysis. All vital information needed for warehouse implementation could often be found out from the design documentation of OLTP system. This phase is the most neglected one by the designers of OLTP system; therefore their solutions do not give possibilities of good data analysis to users.

Discuss the Date warehousing implementation process.
