



देव संस्कृति विश्वविद्यालय

शान्तिकुन्ज, हरिद्वार

आन्तरिक मूल्यांकन परीक्षा - INTERNAL EVALUATION TEST

उत्तर-पुस्तिका

परीक्षार्थी अनुक्रमांक (अंकों में)
Student's Roll No. (in numbers)

1824020

पेपर कोड
Paper code

परीक्षार्थी अनुक्रमांक (शब्दों में)
Student's Roll No. (in words)

Eighteen thousand two hundred and twenty

नामांकन संख्या
Enrollment Number

कक्षा
Class

BCAC 6th Sem

विषय
Subject

DW 8 DM

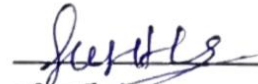
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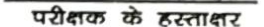
26/02/2021

दिन
Day

Friday

प्रश्न पत्र संख्या
Examination Paper Number


परीक्षार्थी के हस्ताक्षर
Signature of student's


परीक्षक के हस्ताक्षर
Signature of Examiner

लघुतरीय		योग/Total
A) Short Answer Type		
1	2	
दीर्घ उत्तरीय		
B) Long Answer Type		
1		
कुल योग अंकों में / TOTAL IN DIGITS		
कुल योग शब्दों में/TOTAL IN WORDS		

Short Answer type Question:-

①

- Q1. Explain Data mart with suitable example in terms of Data mining.
- The concept of a data mart is causing a lot of excitement and attracts much attention in the data Warehouse industry.
 - Mostly, data marts are presented as an alternative to a data warehouse that takes significantly less time and money to build. However, the term data mart means different things to different people.
 - The data mart is directed at a portion of data (often called a subject area) that is created for the use of a dedicated group of users.
 - A data mart might, in fact be a set of denormalized, summarized or aggregated data. In most instances, however, the data mart is physically separate store user group.
 - The predictive capacity of data mining has changed the design of business strategies.

These are some examples of data mining.

- **Marketing.** Data mining is used to explore increasingly large databases and to improve market segmentation. By analysing the relationships between parameters such as customer age, gender, tastes, etc.
- **Retail:-** Supermarkets, for example, use joint purchasing patterns to identify product associations and decide how to place them in the aisles and on the shelves. Data mining also detects which offers are most valued by customers.
- **Banking:** Banks use data mining to better understand market risks.
- It is commonly applied to credit rating and to intelligent anti-fraud systems to analyse transactions, card transactions, purchasing patterns and customer financial data.

Q9. What do you mean by OLAP?

- A. OLAP (Online analytical processing) is a computing method that enables users to easily and selectively extract and query data in order to analyze it from different points of view.
- OLAP business intelligence queries often aid in trends analysis, financial reporting sales forecasting budgeting and other planning purposes.

How OLAP system work

- To facilitate this kind of analysis, data is collected from multiple data source and stored in data warehouse then cleaned and organized into data cubes.
- Each OLAP cube contains data categorized by dimensions (such as customers, geographic sales region and time period) derived by dimensional tables in the data warehouse.

There are five types of OLAP

(4)

- **Roll up:-** Also known as consolidation, or drill-up this operation summarizes the data along the dimensions.
- **Drill-down.** This allows analysts to navigate deeper among the dimensions of data along example drilling down from "time period" to years and months to chart sales growth for a product.
- **Slice.** This enables an analyst to take one level of information for display, such as "sales in 2019")
- **Dice:-** This allows an analyst to select data from multiple dimensions to analyze, such as "sales of blue beach bells in Iowa in 2019"
- **Pivot.** Analysts can gain a new view of data by rotating the data axes of the cube.

Long type Question

1. A What is data warehousing and Business Intelligence?

- Data warehousing and business intelligence are terms used to describe the process of storing all the company's data in internal or external database from various source with the focus on analysis, and generating actionable insights online BI tools.
- One without the other wouldn't function, and we will now explain premises that surround their framework by using a BI architecture diagram to fully understand how data warehouse enhances the BI processes.
- A solid BI architecture framework consists of:



There are seven major components of data warehousing:

i) Data Warehouse Storage:-

At its core, the data warehouse is a database that stores all enterprise data makes it accessible for reporting in a simplified and optimized manner. Naturally, this means you need to decide on which type of database you will use to store your data warehouse.

- There are four basic types of database you can use for this purpose.

ii) Typical Relational Databases:-

These are the row based databases that are probably used on a day-to-day basis and include Microsoft SQL, SAP, Oracle, and IBM DB2.

- Common relational databases are usually used for transactional systems, but you can use multiple databases running in parallel to serve as a collective storage for your data warehouse, making your repository highly scalable.

iii) Analytic Databases: These are databases, specifically designed for the storage of data to maintain and manage analytic, are commonly used as data warehouse storage.

iv) Data warehouse Appliances:- Not exactly a type of storage, numerous vendors now provide appliances which provided both software to manage the data warehouse and hardware storage.

v) Cloud-hosted Databases:- With the increasing focus on cloud, databases can be hosted and accessed on the cloud, meaning that you don't need to purchase hardware to install your data warehouse.

2. Data warehouse Access tools: At the backend, the data warehouse is built on top a database or collections of data lake.

3. Data warehouse Management: A data warehouse spans the enterprise.

4. Information Delivery System: The information delivery component is used to enable the process of subscribing for data warehouse information.

5. Data Marts:- The concept of a data mart is causing a lot of excitement and attracts much attention in the data warehouse team.

6. Access Tools:- The principal purpose of data warehousing is to provide information to business.

7. Meta data:- Meta data is data about data that describes the data warehouse.