Graphic Era
HILL UNIVERSITY
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University under section 2(f) of UGC Act, 1956

Term Evaluation (Even) Semester Examination March 2025

Roll no. 2292104

Name of the Course and semester: BCA
Name of the Paper: Data Warehousing and Datamining
Paper Code: TBC-604(1)

Time: 1.5 hour   Maximum Marks: 50

Note:
   (i)   Answer all the questions by choosing any one of the sub questions
   (ii) Each question carries 10 marks.

Q1.   (10 Marks)
a. Suppose that a data warehouse consists of the three dimensions time, doctor and patient, and the two measures count and charge, where charge is the fee that a doctor charges a patient for a visit.
    i) Draw a star schema diagram for the above data warehouse.
    ii) Starting with the base cuboid [day, doctor, patient], what specific OLAP operations should be Performed in order to list the total fee collected by each doctor in 2024.   (CO2)
                                        OR
b. Justify the statement "Data mining is one of the steps in the process of knowledge discovery in databases". Explain KDD process with block diagram.   (CO2)

Q2.   (10 Marks)
a. Write a short note on
(i)   Metadata
(ii)   Concept Hierarchy   (CO1)
                                        OR
b. Define OLAP. Explain the OLAP Operations with the help of neat diagram.   (CO1)

Q3.   (10 Marks)
a. Discuss and differentiate between star, snowflake and fact constellation schema with the help of suitable example?   (C02)
                                        OR
b. Define data warehouse. Differentiate between OLTP and OLAP.   (CO1)

Q4.   (10 Marks)
a. List and explain Data warehouse models with suitable examples. Also differentiate between ROLAP and MOLAP.   (CO2)
                                        OR
b. Enumerate the differences between the three main types of data warehouse usage: information processing, analytical processing and data mining.   (CO2)

Q5.   (10 Marks)
a. How data marts are different from data warehouse? Discuss the types of data marts with suitable example.   (CO1)

                                        OR
b. Define data cube? Discuss the Draw Three-Tier Data Warehouse architecture.   (CO2)