QUESTION NO.: 1

Steps involved in KDD process are:

→ Developing an understanding of application domain and goals of end user.

Creating a target dataset, selecting a dataset on which discovery is to be performed.

Data cleaning and preprocessing:
Removal of noise and outliers
Strategies for handling missing data fields.

Data Reduction and projection:
Finding useful features to represent data depending on the goal of task. Using dimensionality reduction or transformation methods to reduce effective variables or to find invariant representation

Choosing datamining task:
Deciding whether goal of KDD process is classification, regression, clustering, etc.

QUESTION NO.: 1

Choosing datamining algorithm:
Selecting method to be used for searching for patterns in data.
Deciding which models and parameters may be appropriate.

Data Mining
Searching for patterns of interest in particular representational form or a set of such representations as classification rules or trees, regression, clustering, etc.
Interpreting mined patterns and consolidating discovered knowledge
Pattern Evaluation is defined as identifying strictly increasing patterns representing knowledge based on given measures
Uses summarization and Visualization to make data understable by user

QUESTION NO.: 2

Atomicity: All statements of transaction much succeed completely or fail Completely in each and every situation including power failures, errors and crashes.

Consistency: The database must remain in consistent state after any transaction Data in database should not have any changes other than intended after transaction completion.

Insolation: Isolation ensures that concurrent execution of transactions leaves database in same state that would have been obtained if transactions were executed sequentially.

Durability: It guarantees that once transaction has been committed, it will remain committed even in case of system failure which actually means recording completed transaction in nonvolatile memory

QUESTION NO.: 3

Inheritance: It is property of OOPs in which one object acquires properties and behaviors of parent object. It's creating parent child relationship between two classes. The object getting inherited is called superclass and object that inherits the superclass is called subclass.

Abstraction: Abstraction is concept of hiding internal details and describing things in simple terms. It is concept in JAVA which is an act of representing essential features without including background details.

Polymorphism: It is concept in which variable, object or function to take multiple form. There are two types of polymorphism - Compile time and runtime. Compile time is achieved by method overloading and runtime is achieved by method overriding.

Encapsulation: It is concept of wrapping data and code. In this, the variables of class are always hidden from other classes. It can be accessed using methods of their current class.

QUESTION NO.: 4

A DBMS has appropriate languages and interfaces to express database queries and updates. Database languages can be used to read, store and update the data in database. Types of database languages:

1) DDL 2) DML 3) DCL 4) TCL

1) Data Definition language. It is used to define database structure or pattern. It is used to create schema, table, index, etc. in database. Using DDL statements, you can create skeleton of database.

2) DML: Data Manipulation language. It is used for accessing and manipulating data in database. It handles user requests. Some tasks: Select. It is used to retrieve data from database. Insert. It is used to insert data into table. Update: It is used to update existing data within a table.

3) Data Control language: It is used to retrieve the stored or saved data. The DCL execution is transactional. It also has rollback parameters.

QUESTION NO.: 4

Here are some task that come under DCL: Grant: It is used to give user access privileges to database. Revoke: It is used to take back permission from user.

4) Transaction Control Language is used to run changes made by DML statement. TCL can be grouped into logical transaction Here are some tasks that come under TCL: Commit. It is used to save transaction on database. Rollback: It is used to restore database to original since last commit.

QUESTION NO.: 5

Kernel is central component of operating system that manages operations of computer and hardware. It basically manages operations of memory and CPU time. It is core component of operating system. Kernel acts as bridge between application and data processing performed at hardware level using inter-process communication and system calls. Kernel loads first into memory when operating system is loaded and remains into memory until operating system is shut down again.