QUESTION NO.: 1

1). Data cleaning is defined as removal of noisy and irrelavant data from Collection. As a part of this process noisy, redundant data is removed so accuracy of data increases. Missing values are also filled.

2). Data Integration:- It is defined as combining Heterogeneous data from multiple sources. Data Integration is done by ETL (Extract - Load - Transformation).

3). Data Selection:- This process is defined as process where data which are only relevant to analysis is decided and retrieved form the data source.

4). Data Transformation:- Data transformation is defined as process of transforming data into appropriate form required by mining process. Techniques here used are Dimension reduction, feature selection.

5). Data Mining:- In this step different techniques are applied to extract potential patterns and Informations.

QUESTION NO.: 1

Further classification and characterization can be done.

6). Pattern evaluation and knowledge representation:-
It is defined as identifying strictly increasing patterns representing knowledge based on given measures.
Further extracted patterns and knowledge information are represented in different forms like Bar charts, graphs, tables etc.

QUESTION NO.: 2

ACID property stands for Atomicity, Consistency, Isolation and Durability.

Atomicity: It means that entire transaction takes place at all or it doesn't occur at all. It means there is no midway. Transaction can never occur partially.

ex. Suppose person A is transferring money to B the money has been deducted from A but not added in B's account. then this case will result in database inconsistency.

Isolation:- Isolation ensures the occurance of multiple transaction concurrently without a database state leading to a state of inconsistency. It allows database system to run concurrent transactions.

changes made in one transaction are not visible to other transaction if they are not related.

Consistency:- It simply means that database before transaction and after transaction should be consistent. By term consistent means After transaction db should maintain Integrity.

QUESTION NO.: 2

Durability :- It states that once any transaction completed it should be record these changes on persistent storage. Even After any Hardware or Software failures these changes should persist.

Inshort all of these properties of transaction in dbms ensures Correctness of System.

QUESTION NO.: 3.

Object oriented programming is programming Paradigm. Java tries to follow oop Paradigm. It provides many oop concepts like Encapsulation, Abstraction, polymorphism, Inheritance.

Encapsulation :- In Encapsulation data - Attribute and methods related to single object are kept together (Encapsulated).
By using classes in Java we can Achieve Encapsulation.

Abstraction :- Abstraction is easy to hide the internal complexity of process from user. for example making a phone call. we don't know how internally it works we just know how to make a call.

Inheritance :- Inheritance allows to use existing features of other class to be used it in another class. the class from which we derive is called Super or Base class. the derived class is also called as child class. Java does not allows multiple Inheritances.

QUESTION NO.: 3

Polymorphism:-

Polymorphism means one thing in many form. or different behaviour. there three types (ways) to achieve these,

- operator overloading
- method overloading,
- method overriding.
- Java does not allows operator overloading.

QUESTION NO.: 4

There are foure types of database languages.
- Data Defination language, (DDL),
- Data Manipulation language (DML),
- Data control dangage (DCL),
- Transaction control language (TCL).

DDL :- It is used to define the Structure of database by Specifying the Schema. It provides facility to define schema and creation of tables, Indexes.
It also Allows to Alter the table details like changing the column name.
Commands :- CREATE, ALTER, DROP, RENAME.

DML :- It provides features to insert the data in columns. Also provide the update, delete and retreving features from table.
basic commands for DML are:
SELECT, INSERT, UPDATE, DELETE.

DCL :- It controls the access level of dara that user Stores within database. It Simply provides the rights and permissions of database System.

QUESTION NO.: 4

Simple commands :- GRANT, REVOKE.

4). Transaction control language :-

It tries to maintain the consistency of the transaction. It is very important to maintain ACID properties.

Commands :- COMMIT, ROLLBACK.

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.