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│     BSCCS2001: Graded Assignment with Solutions   │
│                    Week 1                          │
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1. Which of the following is not a drawback of file systems when compared to DBMS?

[MCQ:2 points]

○ Inconsistent data

√ Ease of initial setup

○ Lack of data integrity

○ Difficult to support concurrency

Solution: The initial setup is more complex for DBMS than a file based system. All the other options are the drawbacks of file systems which a DBMS mitigates.

2. Which of the following creates and maintains the schema of a database?

[MCQ:1 point]

○ Data Manipulation Language

√ Data Definition Language

○ Data Control Language

○ None of the above

Solution:
Data Definition Language commands are used to define tables, constraints, indexes etc in DBMS. They determine the schema of the database.

3. Which of the following describes the concept that any change made to the physical schema should not affect the logical level of the DBMS?

[MCQ:3 points]

○ Logical Data Independence

○ Logical Data Isolation

○ Physical Data Isolation

√ Physical Data Independence

> **Solution:**
> Physical Data Independence refers to the modification of the physical level without affecting the logical and view level.
> Logical Data Independence refers to the modification of the logical level without affecting the view level.

4. Which of the following components of DBMS interacts with the file manager of the operating system?

[MCQ:2 points]

   ○ Evaluation engine

   ○ Execution planner

   ○ Parser

   √ Storage manager

> **Solution:**
> Storage manager is responsible for interfacing and monitoring storage access of the DBMS with the operating system.

5. Which of the following is not an example of DBMS?

[MCQ:1 point]

   ○ Microsoft Access

   ○ PostgreSQL

   ○ Sybase

   √ Microsoft Excel

> **Solution:**
> Microsoft Excel is a spreadsheet software.

6. Consider the given statements.

   - DBMS provides an efficient platform for doing complex arithmetic computation on the data.
   - It is easier to create access rules in a file system than in a DBMS.

Choose the correct option.

○ Both statements are correct

✓ Both statements are wrong

○ statement 1 is wrong, statement 2 is correct

○ statement 2 is wrong, statement 1 is correct

Solution:
Refer slide 3.15

7. Which type of SQL commands can lead to modification in the Data Dictionary?

[MCQ:3 points]

✓ Data Definition Language.

○ Data Manipulation Language.

○ Dictionary Definition Language.

○ Dictionary Manipulation Language.

Solution: The system modifies the data dictionary whenever a data definition language command is executed.

8. Which component of DBMS maintains the consistency of a database when multiple transactions are executed simultaneously on the data?

[MCQ:2 points]

○ Storage Manager

○ Transaction Management Component

✓ Concurrency Control Manager

○ Query Planner

Solution: Refer slide 05.19

9. Storing multiple copies of the same data within the system is not advisable, because it increases

○ Data Consistency

√ Data Redundancy

○ Atomicity of Data

○ Data Integrity

Solution: Storing multiple copies of same data increases data redundancy. This leads to an inconsistent database when modifications are done on one copy but not done on certain other copies of the same data.

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10. Why do we use *try-except* blocks in Python programming language?

[MCQ:2points]

○ For committing data

○ For writing to files

√ For handling exceptions

○ None of the above

Solution: 'try-except' blocks are used for handling runtime exceptions in Python.