

## Dear Students!!

In this e-book of [9<sup>th</sup> class](#), study material of computer science is being sent to you as per new syllabus (2023-24). You can easily prepare your test / papers by reading these notes and watching the video lectures given below. Following are the links of the video lectures in blue colour. Watch these video lectures by clicking on the relevant link of chapter to have better understanding of various concepts.



### 9<sup>th</sup> Class - Computer Science Syllabus & Video Lecture Links (Pbi)

#### Video Lecture's Playlist Link of Computer Science for 9<sup>th</sup> Class:

[https://youtube.com/playlist?list=PLja3EaJFAjmYwpD9b\\_D9520GLE9BwEHsZ](https://youtube.com/playlist?list=PLja3EaJFAjmYwpD9b_D9520GLE9BwEHsZ)

#### Chapter-wise Links of Video Lectures:

Chapter -1 Networking <https://youtu.be/U1LCLGC0Kc8>

Chapter -2 Internet Applications <https://youtu.be/4zjjeo4HCRs>

Chapter -3,4,5,6 Video Lectures for MS Excel

Part-1 <https://youtu.be/AvSCtIOzSx0>

Part-2 [https://youtu.be/eaaz65WrF\\_U](https://youtu.be/eaaz65WrF_U)

#### Video Lectures for Excel Practical:

Part-1 <https://youtu.be/8ioY-a6i5MY>

Part-2 <https://youtu.be/7gAz1jELgmo>

Chapter -7 E-Governance <https://youtu.be/U4Zah7au2Es>

Chapter -8 Intro to Database <https://youtu.be/sWCvejbp0hl>

**PLEASE DO NOT FORGET TO LIKE, SHARE AND SUBSCRIBE OUR YOUTUBE CHANNEL**

 **YouTube** <http://youtube.com/c/computersciencepunjab>

Prepared By:

Vikas Kansal and Sukhwinder Singh

Computer Faculties, S.U.S. Govt. (G) Sen. Sec. School, Sunam Udham Singh Wala (Sangrur)

Please use the following link to download the study material/e-books/e-contents for 6<sup>th</sup> to 12<sup>th</sup> classes:

<http://cspunjab.nirmancampus.co.in/study.php>

Que:1 Fill in the blanks:

- \_\_\_\_\_ is a raw and unorganized fact that requires processing to make it meaningful.  
 a. Data                                      b. Information                                      c. Database                                      d. DBMS
- A Record is also known as a \_\_\_\_\_.  
 a. Column                                      b. Attribute                                      c. Field                                      d. Tuple
- A person who manages and controls the overall DBMS is called a \_\_\_\_\_.  
 a. DBA                                      b. End User                                      c. Database Designer                                      d. Programmer
- DBMS is a software layer that provides an interface between \_\_\_\_\_ and the \_\_\_\_\_.  
 a. Data, Information                                      b. DBA, End User                                      c. User, Database                                      d. Data, Database
- \_\_\_\_\_ refer to general rules and instructions that help to design the database and to use a database management system  
 a. Information                                      b. Procedures                                      c. Application Programs                                      d. System Programs

Que:2 Write the Full Forms:

- DBMS**                      Database Management System
- DBA**                      Database Administrator
- SQL**                      Structured Query Language

Que:3 Short Answer Type Questions

Q:1 What is record?

Ans: A record is an important element of a database. It is a collection of named data-items. It represents a complete unit of information in the table. A Record is also known as a Tuple. Following table shows the example of four student records.

Attributes		
Roll No	Name	Marks
101	Ram Singh	452
102	Mohan Lal	412
103	Gurmeet Kaur	512
104	Paramveer	402

Record

Table: Students

Q:2 Define Database.

Ans: A database can be defined as the organized collection of interrelated data. Databases are used to store the vast amount of data in various organizations. A database provides organized structure to store data electronically. Generally, data in the database is organized into rows, columns, and tables. A database may have one or more tables.

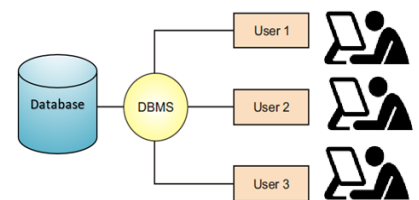
Q:3 Write the name of different types of users of database.

Ans: Following are the different types of users of database:

- Application Programmers
- Database Administrators
- End-Users

Q:4 What do you know about DBMS?

Ans: DBMS stands for Database Management System. To overcome all drawbacks of file processing system, a new system called Database Management System (DBMS) was developed. DBMS is a system software. It provides us the facility to create, retrieve, update and manage data of the database. In simple terms, we can say that DBMS is a software layer that provides an interface between user and the database.



Q:5 Write the name of various components of Database environment.

Ans: Following are the various components of Database Environment:

- Software (Operating System, DBMS)
- Hardware
- Procedures
- Data
- Users

**Que:4 Long Answer Type Questions:**

**Q:1 Write the differences between Data and Information.**

Ans: Following are the major differences between Data and Information:

Data	Information
1. Data is raw and unorganized fact that requires processing to make it meaningful	1. Information is processed data that does not require any processing to make is meaningful
2. Data does not have any specific purpose	2. Information carries a meaning
3. Data alone has no significance	3. Information is significant by itself
4. Data is measured in bits and bytes	4. Information is measured in meaningful units like time, quantity, etc.

**Q:2 Explain the various components of DBMS Environment.**

Ans: Following are the major components of DBMS environment:

- **Software:** Software refers to the collection of programs used with in the database environment. It includes the Operating System, DBMS Software, Application Programs and Utilities.
- **Hardware:** It includes all the physical devices of database system. For Example: Computer System, Main Memory, Secondary Storage etc.
- **Procedures:** It refers to general rules and instructions that help us to use a database system.
- **Data:** It is the most important component of the database. The main task of DBMS is to process the data.
- **Users:** The users are the people who control and manage the databases. For Example: Application Programmers, DBA, End-Users



**Q:3 Differentiate File Processing System and DBMS.**

Ans: There are following differences between DBMS and File system:

File Processing System	DBMS
1. File processing system manages files in a storage medium.	1. DBMS is a software for managing the database.
2. There may exist redundant data in the files.	2. There is almost no redundant data in the databases
3. File system doesn't have a crash recovery mechanism	3. DBMS provides a crash recovery mechanism
4. It doesn't provide backup and recovery system.	4. It provides backup and recovery system.
5. There is no efficient query processing in file system.	5. There is efficient query processing in the DBMS.
6. There is less data consistency in file system.	6. There is more data consistency.
7. It is less complex as compared to DBMS.	7. It has more complexity.
8. File systems provide less security	8. DBMS has more security mechanisms.
9. It is less expensive than DBMS.	9. It is more expensive.

**Q:4 What is DBMS? Explain any five advantages of DBMS.**

Ans: DBMS stands for Database Management System. To overcome all drawbacks of file processing system, a new system called Database Management System (DBMS) was developed. DBMS is a system software. It provides us the facility to create, retrieve, update and manage data of the database. In simple terms, we can say that DBMS is a software layer that provides an interface between user and the database.

**Advantages of DBMS:**

- There is almost no data redundancy in DBMS
- Inconsistency in data can be controlled in DBMS
- Data can be shared by multiple users in DBMS
- DBMS Provides built-in Backup and Recovery system
- Unauthorized users cannot access the database
- Multiple users can access the same data from the database

