# Dear Students!!

In this e-book of 12th 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.

## 12<sup>th</sup> Class - Monthly distribution of Computer Science Syllabus & Video Lecture Links (Pbi)

| Month | Chaper & Its Name | Link of Video Lecture |
|---|---|---|
| April | Chapter-1 Office Automation & Typing (Explanation) | https://youtu.be/HEJpX01IwpM |
|  | Chapter-1 Office Automation & Typing (Solution) | https://youtu.be/LwOpv8j92bo |
| May | Chapter -2 Control Statements (Explanation) | https://youtu.be/T6zvUn61x-k |
|  | Chapter -2 Control Statements (Solution) | https://youtu.be/JXe2kGAJ7WY |
| July | Chapter -3 Computer Networks | https://youtu.be/6YULI1naDZI |
| Aug | Chapter -4 Current Trends in Information Technology | https://youtu.be/YHtjpOWi-ZY |
| Oct | Chapter -5 Artificial Intelligence & Expert System | https://youtu.be/rvn2FpS1PKQ |
| Nov | Chapter -6 Digitialization | https://youtu.be/galuEBdTkuI |
| Dec | Chapter -7 E Governance (Part-2) | Under Preparation |
| Jan | Chapter -8 Image Editing & File Conversion Tools | Under Preparation |
| Feb | Chapter –9 Audio & Video Editing | Under Preparation |

### Practical Video Lectures for Chapter -2 (Control Statements)

| | |
|---|---|
| C Language Practical -1 | https://youtu.be/8hg3BJAyBqE |
| C Language Practical -2 | https://youtu.be/v_lw8wmfIP4 |
| C Language Practical -3 | https://youtu.be/RBq--darc0I |

### Following is the Link of Playlist for detailed Lectures on C Programming

https://youtube.com/playlist?list=PLja3EaJFAjmYjeAcDs0ZQdVmx7liCtg5P

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

▶ YouTube  **http://youtube.com/c/computersciencepunjab**

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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

**Chapter 4th**
**Current Trends in Information Technology**

**Que1: Multiple Choice Questions**

**1. Information Technology (IT) is an area under which computers or other physical devices (hardware, software) are used to create, _____, secure and exchange electronic data.**

a. Access      **b. process**      c. define      d. save

**2. With the introduction of online education services, students can learn from anywhere using the _____**

**a. Internet**      b. electricity      c. 5G Technology      d. email

**3. Android operating system is a _____ operating system.**

a. Computer      **b. Mobile**      c. Technology      d. Virtual reality

**4. Cloud computing is a kind of _____based computing.**

a. Big-data      b. IoT      **c. Internet**      d. Bluetooth

**Que:2 Write the Full form of following**

| | | |
|---|---|---|
| 1. Wi-Fi | : | Wireless Fidelity |
| 2. VR | : | Virtual reality |
| 3. IoT | : | Internet of Things |
| 4. IT | : | Information Technology |
| 5. GPS | : | Global Positioning System |

**Que:3 Fill in the blanks**

    I. _____ is a technology that uses radio waves for wire-less high speed internet and network-coinnections.

    II. _____ means experiencing things through our computer that do not really exists.

    III. M.Commerce is also known as _____ Commerce

    IV. _____ storage is a way of saving digital things online.

**Ans:**    **I. WiFi**      **II. Virtual Reality**      **III. Mobile**      **IV. Cloud**

**Que:4 Short Answer Type Questions.**

**Q:1 What is Information Technology?**

Ans: Information technology is a technology in which computers or other devices are used to create, process, store and exchange electronic data. Information technology is such a field of any organization or business that does all the operations related to computers and technology.
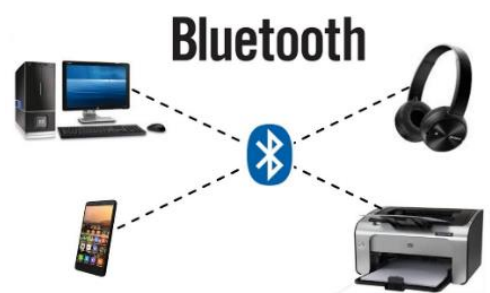
**Q:2 Give name of any four current trends in Information Technology.**

Ans: Following are the names of current major trends in information technology:

- WiFi technology
- Bluetooth technology
- E-commerce
- GPS technology
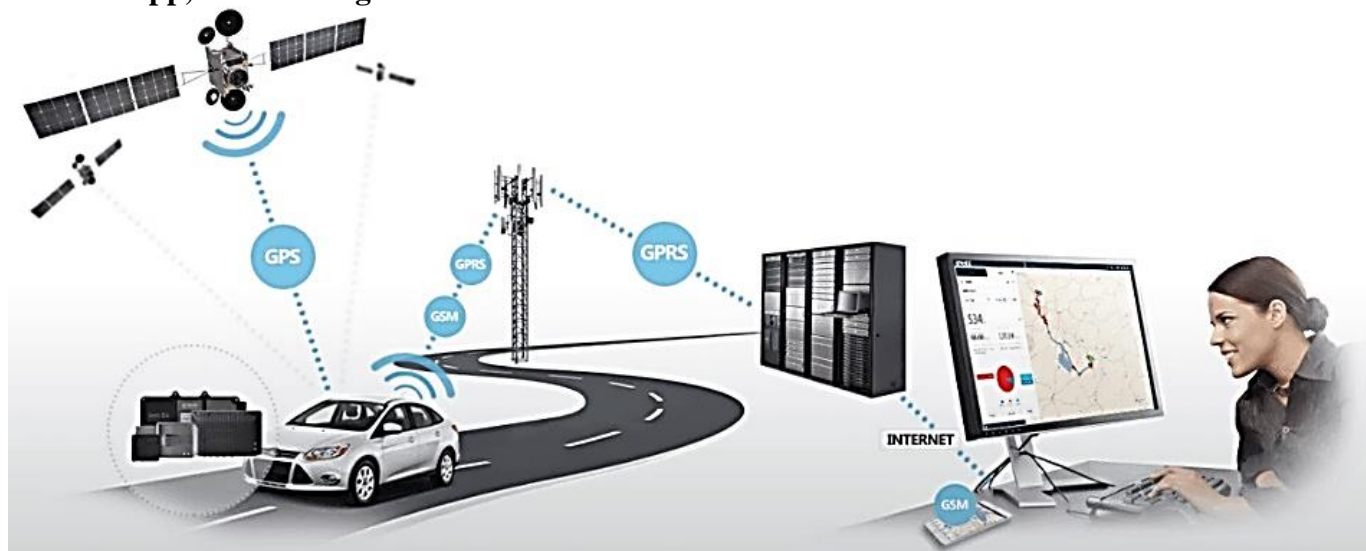- Android technology
- Internet of Things (IoT)

**Q:3 Define Bluetooth Technology.**

Ans: Bluetooth is a type of radio communication technology that allows all types of media files to be sent or received wirelessly. It enables short-distance wireless networking between phones, computers and other devices. The process used to connect two Bluetooth devices is called "pairing".

**Q:4 Define GPS Technology.**

**Ans:** The full name of GPS is Global Positioning System. GPS is available in every smartphone today. GPS is used to find the geographical location of any place. It is a global navigation satellite system. We can use it to find the distance or route between two places. When we send our live location to someone on WhatsApp, we are using GPS.



**Q:5 What do you know about E-Commerce?**

**Ans:** E-commerce stands for Electronic Commerce. It is also known as Internet Commerce. It is a way of doing business using the internet. With the use of this technology, buying or selling of goods and services is possible through the Internet. In this technology, two or more parties exchange data and money electronically. Examples of E-Commerce websites are Amazon, Flipkart etc.

**Q:6 Define 5G technology.**

**Ans:** 5G technology means 5th generation technology. 5G is the next generation of wireless technology. This technology is much better than 2G, 3G and 4G technologies. The 5G technology based mobile networks will connect people as well as connect and control machines and devices. In 5G technology, the speed of internet can be 100 times faster than 4G technology. Its internet speed will be more than 20 Gbps so that large amount of data can be easily downloaded and uploaded within a very short time span.

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

**Q:1 What is Information Technology? Describe the various applications of Information Technology?**

**Ans:** Information technology is used in every field of human life. Here is a description of some of the application areas of information technology:

- **Business:** Information technology is used in business to run it smoothly.
- **Online education:** In online education, students can get education from anywhere by using internet.
- **Health:** Information technology has greatly improved the field of health. Information technology is used to manage lab test results, patient records, etc.
- **Transportation:** In the field of transportation, information technology is used for various purposes, such as: booking railways and airplane tickets from home, availability of seats, travel time, etc.
- **Telecommunications:** Information technology has opened the door to new telecommunication services, such as: exchanging information via email, video conferencing etc,
- **Entertainment:** The computer has become an important tool for watching movies, listening music and playing games etc.

**Q:2 Describe Android Technology with its advantages.**

**Ans: Android is an operating system. It is used for mobile devices. It was developed by the Open Handset Alliance and later supported by Google. It was later used for touch screen devices, cellphones and tablets.**

**Benefits of Android:**

- **It is compatible with different platforms, such as Windows, Linux operating system, etc.**
- **It supports different media, such as: MP3, MP4 etc.**
- **It supports various technologies, such as: Camera, Bluetooth, Wi-Fi etc.**
- **It supports multi-tasking.**
- **It can be used easily.**

**Q:3 Describe Internet of Things (IoT) with its advantages**

**Ans: The Internet of Things or (IoT) is a new technology that focuses on making human life more comfortable. The Internet of Things (IoT) is a cyber physical system that uses sensors to collect data from the physical world. It is a network of interconnected digital devices and objects. The Internet of Things (IoT) aims to connect everyday devices, such as ACs, refrigerators, TVs etc. to the Internet.**

**Some of the benefits of the Internet of Things (IoT):**

- **IoT devices work automatically so it makes human work easier.**
- **All devices are more secure as they are automatic and technical.**
- **They definitely save a lot of human time due to high mechanical processing.**
- **We and our home appliances - cameras etc. stay connected to each other through this technology.**
- **Our home appliances can be turned on and off automatically, which helps in efficient use of electricity and energy.**