# **COMPUTER SCIENCE**

# **Computer Science:**

Computer science is the study of computers and computing as well as their theoritical and practical applications. It applies the principle of mathematics, engineering, algorithm, software and hardware development and artificial intelligence.

## Types of computer science:

There are 5 types of computer science

- 1. computer engineering
- 2. computer science
- 3. information system
- 4. information technology
- 5. software engineering

# Field of study computer science:

- 1. Software Engineering
- 2. Databases
- 3. Automata theory and formal languages
- 4. Operating systems and distributed systems
- 5. Computer networks
- 6. Embedded systems
- 7. Computer Graphics
- 8. AI

# Subjects of study computer science:

- 1. programming fundamentals 1
- 2. introduction to information
- 3. communication technologies
- 4. calculas and analytical geometry
- 5. programming fundamentals 2
- 6. basic electronics
- 7. technical and business writing
- 8. probability and statics
- 9. principles of management

#### Why computer science is the future?

With the fast changing connected world, computer science is a key are for future careers across the world. The term computing covers every kind of digital technology that we use to create, store, communicate, exchange and use information.

# What is interesting about computer science?

According to research computer science is growing much faster than average at 16% growth per year. Computer scientist can work in a wide variety of job titles including: software developer, computer and information system manager, computer programmer, web developer and more.

# What is the computer system?

A computer system is a combination of memory, CPU, different devices connected to it and operating system (OS).

## What is a microprocessor?

A microprocessor is an integrated circuit having all the functionality of a central processing unit of a PC.

## What is Technology?

Technology is the application of science to solve problems.

# List some popular operating system?

Microsoft Windows, Mac OS, LINUX.

## What is programming language?

A programming language is a collection of grammar rules use for giving instructions to computer.

# How many types if programming language?

There are 3 types of programming languages:

- 1. machine language
- 2. assembly language
- 3. high level language

#### Names of programming language?

JAVA, PYTHON, JAVASCRIPT etc.

#### What is JAVA?

JAVA is a widely used high level class based programming language it is designed by James Gosling. It is first released in 1995.

#### What is PYTHON?

PYTHON is also a widely used programming language often used to build website and software automate tasks and conduct data analysis. It is designed by Guido van rossum. It is first released in 1991.

# What is Algorithm?

An algorithm is a rule or step by step process that must be followed inorder to solve a particular problem.

# What is Artificial intelligence?

Artificial intelligence (AI) is the ability of a computer or a robot controlled by a computer to do tasks that are usually done by humans because they require human intelligence. The main aim of AI is to solve problems in a way that are better and faster. Stanford's John Mc carthy seminal figure of AI dies at 84.

## Types of artificial intelligence?

There are 3 types of AI:

- 1. Artificial Narrow Intelligence
- 2. Artificial General Intelligence
- 3. Artificial Super Intelligence

#### What is CSS?

CSS stands for Cascading Style Sheet. It is a style sheet language. It can format the documents content (written in HTML or other markup language).. layout, color, fonts etc.

### What is HTML?

HTML stands for Hyper Text Markup Language. It is the standard markup language for creating

Web pages.

#### What is a File?

A file is a location that stores information and data. Files are always stored inside a storage device using the name given to the file. Files keep data and information permanently or until deleted.

### What is a Class? What is a Superclass?

A class is used to define the characteristics of an object, such as how they will respond to a message and what type of message the object will respond to. A superclass is the basis of the class being considered.

### What is a Inheritance?

Inheritance is the property that has been passed on from a superclass to a subclass.

# What are the primary components of a computer system?

The primary components of most computer systems are the central processing unit, the memory and the input and output devices. The CPU is typically an arithmetic logic unit, control unit or both. The memory of a computer system refers to both the primary and secondary memory.

#### What is a chipset?

A computer's chipset is what controls the communication between all computer components, including the RAM, CPU and storage. The chipset denotes which and how many USB devices and high-speed components a motherboard can support. Chipsets are often used to control peripherals like the mouse, monitor and keyboard.

#### What is primary and secondary memory?

Primary memory is the main memory of a computer that can be accessed via the CPU. Semiconductor chips are the most commonly used technology for primary memory. The secondary memory is an external storage device that can be used to keep data and information permanently. Examples of secondary memory include floppy disks, hard drives and USB flash drives.

## What are the commonly used computer processors?

A few of the latest and most commonly used computer processors include Intel Core i5, Intel Core i7, Intel Core i9, AMD Ryzen 5 and AMD Ryzen 7.

#### What is a constructor?

A constructor is the method or methods used when creating an object of class. Parameterized and default constructors are the two different kinds of constructors used.

#### What is an interface?

An interface is a reference type in the program Java. This type is similar to the class but also includes abstract methods.

Who is the father of Computer science?

Charles Babbage

Scientific Name of Computer?

Sillico sapiens

Who developed the first electronic computer?

J.V. Atansoff

In which year, the Microsoft company was founded?

1975

### Abbreviations:

SDLC: Software Development Life Cycle

WWW: World Wide Web

HTML: Hyper Text Markup Language

CSS: Cascading Spread Sheet

JPEG: Joint PhotoGraphic Experts Group

**URL**: Uniform Resource Locator

IBM: International Business Machine

MICR: Magnetic Ink Character Recognition MSIC: Medium Scale Integrated Circuits