

Computer Fundamentals

Hardware | Software | Networking | Internet

ReadyForJob.in | Free Study Material | All Competitive Exams

Topics:

1. Introduction & History
 2. Hardware & Software
 3. Networking & Internet
 4. MCQ Practice
-

1. Introduction to Computers

A computer is an electronic device that processes data according to instructions (programs). It accepts input, processes it, stores data, and provides output. IPOS cycle: Input → Process → Output → Storage.

Q. Who is called the Father of Computer?

Ans: Charles Babbage — invented Analytical Engine (1837), the first general-purpose mechanical computer concept

Q. Who is called the Father of Modern Computer?

Ans: Alan Turing — proposed Turing Machine concept, foundation of modern computing

Q. What is a bit and byte?

Ans: Bit = smallest unit of data (0 or 1). Byte = 8 bits. 1 KB = 1024 Bytes. 1 MB = 1024 KB. 1 GB = 1024 MB. 1 TB = 1024 GB.

Q. Types of computers by size?

Ans: Supercomputer (most powerful), Mainframe, Minicomputer, Microcomputer (PC/laptop), Embedded computers

2. Hardware & Software

Hardware = physical components (CPU, RAM, Hard Disk, Monitor, Keyboard, Mouse). Software = programs (Operating System, Application Software, Utility Software).

Q. What is CPU?

Ans: Central Processing Unit — brain of computer. Consists of ALU (Arithmetic Logic Unit), CU (Control Unit), Registers.

Q. What is RAM vs ROM?

Ans: RAM (Random Access Memory) = temporary, volatile memory — loses data when power off. ROM (Read Only Memory) = permanent, non-volatile — stores BIOS/boot instructions.

Q. Types of storage devices?

Ans: Primary: RAM, ROM. Secondary: Hard Disk, SSD, CD/DVD, USB drive, Memory Card. Tertiary: Magnetic Tape (backup).

Q. What is an Operating System?

Ans: System software that manages hardware and software resources. Examples: Windows, Linux, macOS, Android, iOS. First OS: GM-NAA I/O (1956).

3. Networking & Internet

Q. What is the Internet?

Ans: Global network of networks using TCP/IP protocol. Invented by ARPANET (1969, US military). WWW (World Wide Web) created by Tim Berners-Lee (1989).

Q. What is IP Address?

Ans: Internet Protocol Address — unique numerical label for each device on network. IPv4: 32-bit (e.g., 192.168.1.1). IPv6: 128-bit.

Q. HTTP vs HTTPS?

Ans: HTTP = HyperText Transfer Protocol. HTTPS = HTTP Secure (uses SSL/TLS encryption). Always prefer HTTPS for security.

Q. Types of networks?

Ans: LAN (Local Area Network) — small area. MAN (Metropolitan Area Network) — city. WAN (Wide Area Network) — large area/countries. PAN (Personal Area Network) — Bluetooth range.

4. MCQ Practice

Q. Father of Computer is:

- (a) Alan Turing
- (b) Charles Babbage
- (c) Bill Gates
- (d) Steve Jobs

Answer: (b) Charles Babbage

Q. 1 GB = how many MB?

- (a) 100
- (b) 512
- (c) 1000
- (d) 1024

Answer: (d) 1024

Q. Which memory is volatile?

- (a) ROM
- (b) Hard Disk
- (c) RAM
- (d) CD-ROM

Answer: (c) RAM

Q. WWW was invented by:

- (a) Bill Gates
- (b) Tim Berners-Lee
- (c) Vint Cerf
- (d) Larry Page

Answer: (b) Tim Berners-Lee

Q. Which is NOT an operating system?

- (a) Windows
- (b) Linux
- (c) Oracle
- (d) Android

Answer: (c) Oracle