



Exam Waves

# Computer Awareness Master Guide 2026



- JKSSB
- SSC
- Banking
- Railway
- Defence
- And All Other Competitive Exams





**Exam Waves**

## **About this book**

Computer Awareness Master Guide 2026 is expertly crafted by Exam Waves, a leading coaching academy for competitive exams. Designed for JKSSB, SSC, Banking, Railway, and Defence aspirants, this book offers clear concepts, structured units, and exam-focused content to help students score high with confidence.

## **Key features of this book**

- Complete coverage for all competitive exams
- Unit-wise structured and easy format
- Simple and clear explanations
- Exam-focused important facts
- Bonus facts for extra scoring edge
- Perfect for quick revision
- Suitable for beginners and Experienced aspirants
- Designed by Exam Waves – Trusted Coaching Academy



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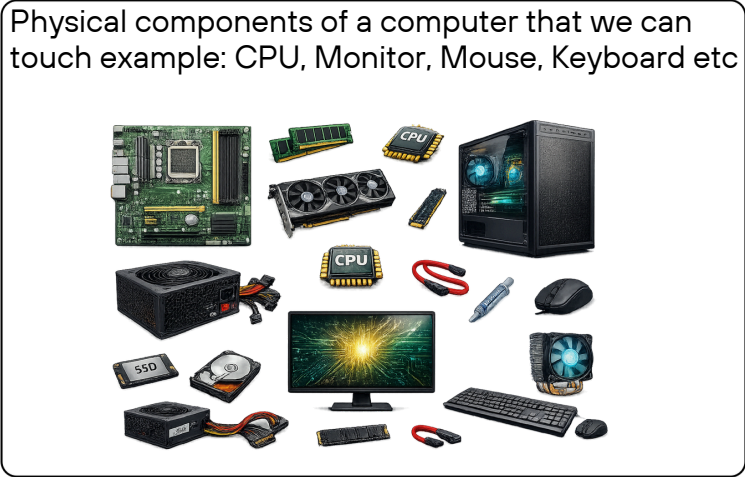
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# Unit - 2 Hardware and Software

## Hardware

Physical components of a computer that we can touch example: CPU, Monitor, Mouse, Keyboard etc



## Software

Computer Software refers to the collection of Instructions that are used to operate computers

### Types of Software

System Software	Application Software
Set of Instructions used to operate a computer like Operating System, device drives, language translators etc.	It is a software which performs specific functions like Microsoft Word
Open-Source Software's	Closed Source Software
It s a software were the source code is open to public <b>Examples</b> Linux, Ruby, Libre Office, Mozilla FireFox, GNU, Audacity, Pidgin, Moodle, Gimp, Blender.	It is a software where the source code is proprietary <b>Examples</b> Microsoft windows, Opera, Adobe reader, Adobe flash player, Skype, Google earth, Adobe flash, Mac OS, Virtual box etc.

Word Processing Software	Spreadsheet
Open office writer, MS word, i work pages, word pad, word perfect, Notepad, Google Docs, Abiword	MS Excel Google sheets, Libre office, Lotus, Zoho Sheets
Presentation	Graphics
MS Power Point Ludus, slides, slide bean, visme, Prezi, Canva Keynote.	Inkscape Adobe photoshop, Adobe illustrator, Adobe Gimp, paint shop, Picasa, Corel Draw, canvas, camtasia.
Freeware	Shareware
It is availbe free of cost but can not be modified Example: VCL Media Player, GIMP, Audacity, Libre Office	It is a Software that can be used as free for a certain period of time or trial basis Example: Winzip, PHP Debugger

## Gopher

- Developed by Mark McCahil in 1991
- It is a protocol designed for distributing and retrieving documents over the Internet

## Telnet

- It means Teletype Network developed in 1969
- It is text based protocol
- It provides a connection to the remote computer in such a way that local terminal appears to be at the terminal remote side

## URL (Uniform Resource Locator)

### Components:

- Structure of URL : **https://**  
**www.examwaves.in**
- Scheme:- Http
- Sub domain:- https:// www.subdomain
- Domain:- www.examwaves.in
- Top level domain:- Example like.com domains
- Port No
- Path
- Query String : Separator (?)
- Query String
- Fragment: It begins with #

### Port Nos

- HTTP PORT NO: 80
- HTTPS PORT NO: 443
- **Domain name:** way to find computers on internet.
- **Web page:** Created using HTML (Hyper text Markup language).
- **Web site:** Group of web pages.
- **Home Page:** first page on the website.
- **Web Browser:** Software application Used to locate content on internet.
- **HTML:** Developed in 1991 by Tim Berners Lee

## Search Engine

- First Search Engine was Archie 1970
- Bing by Microsoft in 2009
- Baidu by Yandex in 2000
- Duck Duck Go in 2008
- Google in 1997
- Yahoo in 1994
- Altavista by DEC in 1995
- Ask.com by Ask Media Group in 1996
- Qmamu developed by India in 2021

## Browsers

- Fire fox Mozilla in 2002
- Safari Apple in 2003
- Internet explorer Microsoft 1995
- Netscape (First commercial Web Browser)
- Opera
- Erwise (First Graphical Web Brower before Mosaic)
- First Graphical web browser is NCSA Mosaic developed in 1993.
- Chrome (Open Source Browser by Google) in 2008
- Epic (India's First Web Browser)

## Other Browsers

- Apache
- Monkey
- Doodle
- Brave

## Cookie

- Stores information about users web activity.

## Book marks

- Links to web page.
- Makes it easily to get back to your favourite place.

## Cloud Computing

- Delivery of computing resources like storage, servers over the internet.

## Bonus Facts

### PING

- It is a command used to test reliability of host on an IP Network

### SFTP

- It is a secure protocol for transferring files over a network

### NETIQUETTE

- It is a correct way of communicating on the Internet

## Email

- Father – Raymond Samuel Tomlinson.
- First Sent in 1971 on Arpanet.
- Email has : 2 parts
- user Abcd@gmail.com.
- Abcd – user name
- gmail.com – domain name
- **Email format**
- From –
- To –
- Date
- Sub.
- **CC:** Carbon Copy :
- Includes those recipients whom we want to keep informed but not exactly intended receipt.
- **BCC:** Blind Carbon Copy
- when we don't want one or more of recipients to know some one else was copied on this message.
- Mail to : It allows users to easily send Emails by opening there default email application.
- One Email address has maximum 254 characters

## MIME

- Multi Purpose Mail Extensions
- It is not a protocol rather it is standart
- It allows emails to include not text attachments such as, Images, audio and docments etc.
- Base 64: It is a method that encodes attachment into a text format
- It defines content types Example: images,

## Email Service Providers

- Gmail
- Outlook
- Mozila Thunder Bird
- Yahoo Mail
- Zoho Mail
- Bravo

Hot mail was first web email server founded by **Saber Bhati and Jak Simit** in 1996

## Email Facts

### SSL/TLS

It is a secure encryption for accessing email

### Email Threading

It means grouping together all messages back and forth conversation on the subject

### PGP

It is an encryption method that protects the actual content of an Email end to end

### Hot Bounce

It is an invalid email address

### Soft Bounce

It is temporary email delivery failure

- Maximum file size that can be attach to an email is 25 MB

### Spam

When unwanted junk email sent in bulk to a large number of recipients

### Paper Clip

It is an icon used to represent attachment in email

### Whaling

Also known as Whaling Pishing.

It is a type of attack which specifically targets high ranking executives by using fake emails

## Email Protocols

### SMTP (Simple Mail Transfer Protocol)

- It used to send emails over the Internet
- It is an application Layer and connection oriented protocol
- Port No: 25 It checks Emails where to send

### POP3 Post office protocol

- It is used to receive email for a single client.
- It allows to access mail offline
- It does not allow search facilities
- It downloads emails from the server to you device and usaully deletes them from server afterword
- Port No: 110 it stores email for client on remote server

### IMAP Internet Message Access protocol

- IMAP allows to access email without downloading them
- It allows multi mail boxes to be created on multiple servers
- Port No: 143 used for Emails unencryption
- Port No: 993 used for Encrypted

## Count

Counts how many numbers are in the list of arguments.

## Count A

- It Counts how many values are in the list of arguments
- It doesn't count empty cells

## Count IF

It counts the number of cells within a range that meet the given criteria.

## TRIM

Removes space from text.

## Argument

Values that a function uses to perform operations or calculations.

## Array

It is used to build single formulas that produce multiple results.

## Labels

It refers to text that is typed into cells of a spread sheet.

## Relative Reference

A relative cell reference is one that changes when it is copied.

## Base Address

Relative path that excel uses for the destination address when you insert a hyperlink .

## Workbook

It is collection of worksheets that are saved together in one file.

## Nested Function

A function inside another function.

## NOW()

It is used to enter current time in work sheet cell.

## Count A()

Best Count non-empty cells.

## Xfd

last column header in excel 2019.

## Other Bonus Facts

- First Spread Sheet programme was VISICALC released in 1979 for apple second computer
- Q1 + 2, Q + 2 – are examples of Series.
- B7 : B9 – It indicates cells through B9.
- 2019 excel – 16384 – columns in worksheet .
- 32,767 – Characters can be typed in a single cell.
- NOT, OR are examples of an function logical operators
- \$ Dollar – Symbol specifies the fixed column and rows.
- 10,48,576 can be maximum rows in excel 2019.
- Zoom Range – 10 to 400%. 255 – Characters in a header & footer.
- 255 – Max. no of line feeds per cell.
- 409 – points row height.
- Page break- 1026 H/ vertical
- Characters in header and footer
- Column in workbook 16 Million
- Fill Styles- 256
- Line weight and style- 256
- Unique font style 1024
- Pans in a window 4
- Feilds in data form
- File name lenght 218 characters
- Default Numeric value is right alignment

## Alignments

- Left, Center and Right

## Unit - 10 Important Abbreviations

- **AAC** : Advanced Audio Coding
- **CDFS** : Compact Disk file system.
- **CGI** : Common Gate way interface
- **CSS** : cascading style sheets
- **CGI** : Colour Graphics Array
- **DAL** : Data Abstract layer
- **Divx** : Digital video expres
- **DSP** : Digital signal processor
- **EBCDIC** : extended Binary code Decimal interchange code
- **EIGRP** : Enhanced interior gateway Routing protocol.
- **FDM** : Frequency Division Multiplexing
- **FET** : Field effect Transistor.
- **HTC** : High Through put computing
- **DBS** : Demand Based Switching
- **JPEG** : Joint photographic expert group.
- **NAT** : network Address Translation
- **UMTS** : universal Mobile Telecommunication system.
- **SMPS** : Switch mode power supply
- **VOIS** : Voice over internet protocol.
- **VLAN** : Value Added network
- **WAN** : Wave from Audio
- **ICP** : Internet cache protocol
- **IDL** : Interface Definition Language
- **IEEE** : Institute of electrical and electronics engineers
- **GUID** : Globally unique identifier
- **HDL** : Hardware Description Language.
- **LBA** : Logical Block Addressing
- **MBR** : Master Boot Record
- **MDF** : Main Distribution frame
- **MIDI** : Musical instrumental Digital interface.
- **OAT** : Operational Acceptance Testing
- **FQDN** : Fully Qualified Domain Name
- **GPRS** : General Packet Radio Services
- **CDMA** : Code Division Multiple Access
- **SEO** : Search Engine Optimization
- **IGMP** : Internet Group Mangement Protocol
- **NNTP** : Network News Transfer Protocol
- **IGRP** : Interior Gatway Routing Protocol
- **IPP** : Internet Printing Protocol
- **IVRS**: Interactive Voice Response System
- **ASCII**: American Code for Information Interchain
- **AMOLED**: Active Matrix Organic Light Emmitting diode
- **BEEP**: Blocks Extensible Exchange Protocol
- **CAD**: Computer Aided Design
- **CGI**: Commom Gateway Interface
- **CEMOS**: Complenetary Metal Oxide Semi Conductor
- **DCCP**: Datagram Congestion Control Protocol
- **ECOS**: Embodied Configrable Operating System
- **EGB**: Exterior Gateway Protocol
- **FLAC**: Free Lossless audio codec
- **FPGA**: Field Programmable Gate Array
- **GIS**: Geographic Information system
- **ICANN**: Internet corporation for Assigned names and numbers
- **AIDC**: Automatic Indentification and data capture
- **CAT**: Computerized Axial Tomography
- **CSS**: Cascading Style Sheet
- **DLL**: Dynamic Link Library
- **DML**: Data Manipulation Langauge
- **OLE**: Object Linking and Ebedding
- **WIMAX**: World Wide Interoperability for micro waves access
- **W3C**: World Wide Web Consotrium
- **XML**: Extensible Markup Language
- **ZIP**: Zone Information Protocol
- **PNG**: Portable Network Graphics
- **PGA**: Professional Graphics Array
- **RTI**: Run Time Library
- **SMPS**: Switched Mode Power Supply
- **SNMP**: Simple Network Protocol
- **IRC**: Internet Relay Chat
- **ISDN**: Integrated Service Digital Network

## Object Oriented

- It is a testing system software testing process that is used conducted to test software using object or paradigm like inheritance, polymorphism, encapsulation etc.

## Flip flop

- It is a device which stores a single bit of Data .

## Fortran

- Formula translator is a high level programming language for Scientific and Mathematical use.

## Sun1

- It was the first generation of UNIX computer work-station and servers produced in 1982.

## Hit Ratio

- It is a performance of Cache Memory in terms of quality

## Omni Box

- It is an Api method that allows you to register a Hay Word with Chrome Address bar

## Embedded Software

- It is specialized application or firmware that runs on a processing cluster into an IC

## Port Numbers

- NTP = 123
- FTP Data = 20
- FTP = 21
- TELNET = 23
- DNS = 53
- IRC = 194
- SNMP = 161
- NNTP = 119
- DHCP = 67,08
- POP2 = 109
- My Sql = 3306

## IMPORTANT EXTENTIONS

### Image File Exatentions

- .png = Portable Network Document
- .bmp = Bitmap Image File
- .gif = Graphics Interchange Format
- .psd = Adobe Photoshop
- .tig = Tigid Image File

### Internet Related File Extensions

- .asp = Active Sever Page
- .css = Cascading Style Sheets
- .js = Java Script
- .jsp = Java server Pages

### Compress Related Files

- .zip
- .rar
- .7z .
- gzip

### Audio Related File Extensions

- .wav = Wave audio file .aac =
- Advanced audio code .m4a
- .uma .mp3
- 
- 

### Video Related File Extensions

- .avi
- .mp4
- .mov
- .flv
- .mpg

### Executable File Extensions

- .msi
- .exe
- .win



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