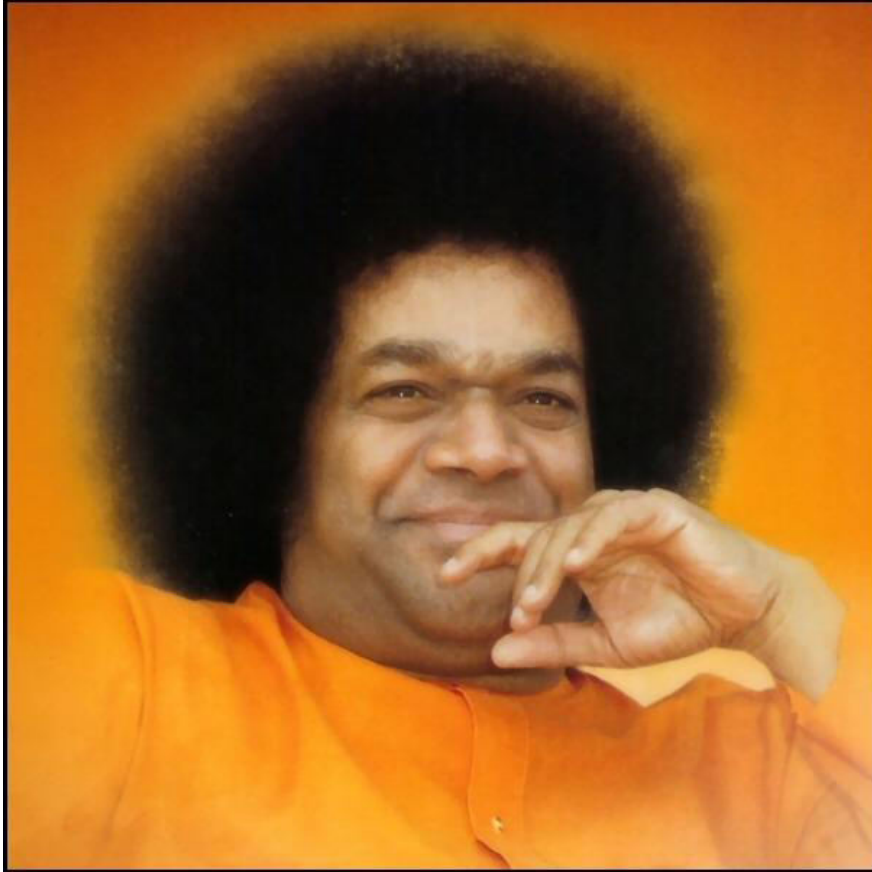


ഓം ശ്രീ സായിറാം



തൃശ്ശൂർ PnAm ശ്രീ സത്യസായി സഭാ കൗൺസിലർമാരുടെ ആഭിമുഖ്യത്തിൽ

SSC, RAILWAY, POSTAL, PSC, INSURANCE, DEFENCE SERVICE etc..യുടെ

സൗജന്യ കോച്ചിംഗ് ക്ലാസ്സ്

# COMPUTER AWARENESS

## അഭ്യയാപകരോട്

ഈ പുസ്തകം SSC,RAILWAY,POSTAL,INSURANCE,PSC,DEFENCE SERVICE

എന്നീ വിവിധ മത്സര പരീക്ഷകൾക്ക് ചോദിക്കാവുന്നതും

ചോദിച്ചുവരുന്നതുമായ ചോദ്യങ്ങളുടെ ഏകദേശ CAPSULE മാതൃകയാണ്. ഈ

ചോദ്യങ്ങളും ഇതിനോടനുബന്ധിച്ചോദ്യങ്ങളും മനസ്സുകളിൽ വിസ്മയിപ്പിച്ചു പഠിപ്പിക്കേണ്ടതും ഈ ഉത്തരങ്ങൾ എങ്ങിനെ ലഭിച്ചു എന്ന് കൂടികൂടെ മനസ്സിലാക്കി കോടുക്കേണ്ടതുമാണ്. മത്സര പരീക്ഷകൾ അനുയോജ്യമായ എളുപ്പവഴികൾ മനസ്സിലാക്കാൻ ഈ പുസ്തകം ഒരു സഹായകമാകുമെന്ന്

പ്രതീക്ഷിക്കുന്നു. ഇത് സ്ഥിരമായി മനസ്സുകളിലേത്തുന്ന് കൂടികൂടെ മാത്രം

ഉദ്ദേശിച്ച രൂപകല്പന ചെയ്തതാണ്. ഈ പുസ്തകം “ഗോപാ<sup>3</sup> സത്യസായി

ബാബ”യുടെ പാദാവിൻദങ്ങളിൽ സമർപ്പിക്കുന്നു.

# **SAI EDUCATION FOR COMPETITIVE EXAMINATION**

*THRISSUR, CHERUSSERY, CHALAKUDY, IRINJALAKUDA & THANYAM (9446786631)*

## **INFORMATION TECHNOLOGY**

### **What is a Computer?**

An electronic device that stores, retrieves, and processes data, and can be programmed with instructions. A computer is composed of hardware and software, and can exist in a variety of sizes and configurations.

### **Hardware & Software**

The term hardware refers to the physical components of your computer such as the system unit, mouse, keyboard, monitor etc. The software is the instruction that makes the computer work. Software is held either on your computer's hard disk, CD-ROM, DVD or on a diskette (floppy disk) and is loaded (i.e. copied) from the disk into the computer's RAM (Random Access Memory), as and when required.

### **Types of Computers**

#### ***Mini and Mainframe Computers***

Very powerful, used by large organisations such as banks to control the entire business operation. Very expensive!

#### ***Personal Computers***

Cheap and easy to use. Often used as stand-alone computers or in a network. May be connected to large mainframe computers within big companies.

### **Hardware Components**

**Input Devices** -- "How to tell it what to do"- A keyboard and mouse are the standard way to interact with the computer. Other devices include joysticks and game pads used primarily for games.

**Output Devices** -- "How it shows you what it is doing"

#### ***Input Devices***

- The Mouse - Used to 'drive' Microsoft Windows
- The Keyboard - The keyboard is still the commonest way of entering information into a computer
- Tracker Balls - an alternative to the traditional mouse and often used by graphic designers.
- Scanners - A scanner allows you to scan printed material and convert it into a file format that may be used within the PC

- Touch Pads - A device that lays on the desktop and responds to pressure
- Light Pens - Used to allow users to point to areas on a screen
- Joysticks - Many games require a joystick for the proper playing of the game

### **Output Devices**

- VDU - The computer screen is used for outputting information in an understandable format
- Printers - There are many different types of printers. In large organizations laser printers are most commonly used due to the fact that they can print very fast and give a very high quality output.
- Plotters - A plotter is an output device similar to a printer, but normally allows you to print larger images.
- Speakers - Enhances the value of educational and presentation products.
- Speech synthesizers - Gives you the ability to not only to display text on a monitor but also to read the text to you
- The monitor (the screen) is how the computer sends information back to you.
- A printer is also an output device.

### **Storage Devices -- "How it saves data and programs"**

Hard disk drives are an internal, higher capacity drive which also stores the operating system which runs when you power on the computer.

"Floppy" disk drives allow you to save work on small disks and take the data with you.

### **Hard Disks**

- Speed - Very fast. The speed of a hard disk is often quoted as "average access time" speed, measured in milliseconds. The smaller this number the faster the disk.
- Capacity - Enormous! Often 40/80 Gigabytes. A Gigabyte is equivalent to 1024 Megabytes.
- Cost - Hard disks costs are falling rapidly and normally represent the cheapest way of storing data.

### **Diskettes (Floppy Disks)**

- Speed - Very slow.
- Capacity - Normally 1.44 Mbytes.
- Cost - Very cheap.

### **CD-ROM Disks**

- Speed - Much slower than hard disks. The original CD-ROM speciation is given a value of 1x speed, and later, faster CD-ROMs are quoted as a multiple of this value.
- Capacity - Around 650 Mbytes and more

### **DVD Drives**

- Speed - Much faster than CD-ROM drives but not as fast as hard disks.
- Capacity - Up to 17 Gbytes.
- Cost - Slightly higher than CD-ROM drives.

### **Main Parts of Computer**

Memory -- "How the processor stores and uses immediate data"

#### ***RAM - Random Access Memory***

The main 'working' memory used by the computer. When the operating system loads from disk when you first switch on the computer, it is copied into RAM.

As a rough rule, a Microsoft Windows based computer will operate faster if you install more RAM. Data and programs stored in RAM are volatile (i.e. the information is lost when you switch off the computer).

### ***ROM – Read Only Memory***

Read Only Memory (ROM) as the name suggests is a special type of memory chip that holds software that can be read but not written to.

A good example is the ROM-BIOS chip, which contains readonly software.

Often network cards and video cards also contain ROM chips.

### ***How Computer Memory Is Measured***

- Bit - All computers work on a binary numbering system, i.e. they process data in one's or zero's. This 1 or 0 level of storage is called a bit.
- Byte - A byte consists of eight bits.
- Kilobyte - A kilobyte (KB) consists of 1024 bytes.
- Megabyte - A megabyte (MB) consists of 1024 kilobytes.
- Gigabyte - A gigabyte (GB) consists of 1024 megabytes.

### ***Microprocessors -- "The brain of the computer"***

- PCs primarily use microprocessors (sometimes called the chip).
- The older Intel versions include the 386, 486 and now the Pentium line.
- The CPU (Central Processing Unit) is normally an Intel

Pentium (or equivalent) and it is one of the most important components within your computer.

- It determines how fast your computer will run and is measured by its MHz speed.
- Thus a 600 MHz Pentium is much faster than say a 400 MHz Pentium CPU.
- It is the CPU that performs all the calculations within the computer.

### ***Some of the Factors***

That Impact on a Computer's Performance

- CPU speed
- RAM size
- Hard disk speed and capacity

### ***Operating systems software***

The operating system is a special type of program that loads automatically when you start your computer.

The operating system allows you to use the advanced features of a modern computer without having to learn all the details of how the hardware works

The link between the hardware and you, the user Makes the computer easy to use without having to understand bits and bytes!

### ***Applications software***

An application program is the type of program that you use once the operating system has been loaded.

Examples include word-processing programs, spreadsheets and databases

### ***Application Software***

- ❖ Word processing applications
- ❖ Microsoft Word
- ❖ Lotus Word Pro
- ❖ WordPerfect
- ❖ Spreadsheets
- ❖ Microsoft Excel
- ❖ Lotus 123
- ❖ Database
- ❖ Microsoft Access
- ❖ Lotus Approach
- ❖ Payroll
- ❖ Sage software
- ❖ Presentation tools
- ❖ Microsoft PowerPoint
- ❖ Lotus Freelance
- ❖ Desktop publishing
- ❖ Adobe Photoshop
- ❖ Multimedia applications
- ❖ Microsoft's Encarta CD-ROM based
- ❖ Encyclopaedias

### **Information Network**

- LAN - A LAN (Local Area Network) is a system whereby individual PCs are connected together within a company or organization
- WAN - A WAN (Wide Area Network) as the name implies allows you to connect to other computers over a wider area (i.e. the whole world).

### ***Uses of Network***

If ten people are working together within an office it makes sense for them all to be connected.

- In this way the office can have a single printer and all ten people can print to it.
- In a similar way other devices such as modems or scanners can be shared.
- Even more useful is the ability to share information when connected to a network.

### **Computer Accessories**

#### ***Modem***

- ❖ Short for "MODulate/DEModulate". The modem sends information from your computer across the telephone system.
- ❖ The modem at the other end of the phone line, converts the signal back into a format that can be used by the receiving computer.

### **Uses of Computer**

#### **PC at Home**

#### ***Common uses for the computer within the home:***

- Computer games

- Working from Home
- Banking from Home
- Connecting to the Web

### ***Computers in Education:***

- CBT (Computer Based Training)
- Computer Based Training (CBT) offers a low cost solution to training needs where you need to train a large amount of people on a single subject.
- These programs are normally supplied on CD-ROM and combine text, graphics and sound.
- Packages range from general encyclopaedias right through to learning a foreign language.

### ***Office Applications:***

- Automated Production Systems
- Many car factories are almost completely automated and the cars are assembled by computer-controlled robots.
- This automation is becoming increasingly common throughout industry.
- Design Systems
- Many products are designed using CAD (Computer Aided Design) programs to produce exact specifications and detailed drawings on the computer before producing models of new products.
- Stock Control
- Stock control is ideal for automation and in many companies it is now completely computerized.
- The stock control system keeps track of the number of items in stock and can automatically order replacement items when required.
- Accounts / Payroll
- In most large organizations the accounts are maintained by a computerized system.
- Due to the repetitive nature of accounts a computer system is ideally suited to this task and accuracy is guaranteed.

### ***Computers in Daily Life:***

- Accounts
- Games
- Educational
- On-line banking
- Smart ID cards
- Supermarkets
- Working from home (Tele-working)
- Internet
- Frequent breaks away from the computer
- Appropriate positioning of screens, chairs and keyboards
- Provision of adequate lighting and ventilation.
- Create a Good Working Environment

### ***Health & Safety Precautions:***

- ❖ Make sure that cables are safely secured
- ❖ Make sure that power points are not overloaded
- ❖ Also be aware of:
- ❖ Repetitive Strain Injury (RSI)

- ❖ Glare from screens
- ❖ Bad posture

### **Value of Backup**

- ❖ The most important thing that you store on your computer is information.
- ❖ Often the contents of a hard disk can represent years of work.
- ❖ If the hard disk stops working one day you could lose all those years of work.
- ❖ For this reason it is VITAL that you take regular backups of the information that is stored on the computer.
- ❖ Organize your computer for more efficient backups
- ❖ Complete vs. incremental backups
- ❖ Use 'off-site' storage
- ❖ Use passwords
- ❖ Understand the Importance of shutting down your computer properly
- ❖ Use a UPS (Un-interruptible Power Supply)

### **Likes & Dislikes of Computer**

- Things computer like:
  - ❖ Good ventilation
  - ❖ Clean environment
  - ❖ Stable, vibration free surface
- Things computer don't like:
  - ❖ Dust
  - ❖ Drinking and eating over the keyboard
  - ❖ Heat, Cold or Moisture
  - ❖ Don't place objects on top of monitors.
  - ❖ Don't place floppy disks near monitors.

## **COMPUTER VIRUS**

### ***What are computer viruses?***

Viruses are small programs that hide themselves on your disks (both diskettes and your hard disk). Unless you use virus detection software the first time that you know that you have a virus is when it activates. Different viruses are activated in different ways.

### ***How do viruses infect PCs?***

Viruses hide on a disk and when you access the disk (either a diskette or another hard disk over a network) the virus program will start and infect your computer. The worst thing about a computer virus is that they can spread from one computer to another, either via use of infected floppy disk, or over a computer network, including the Internet.

### ***How to prevent virus damage***

There are a number of third party antivirus products available. Most of these are better than the rather rudimentary products available within DOS and Windows, but of course you do have to pay for them.

The main thing about your virus checker is that it should be kept up to date.

Many companies supply updated disks on a regular basis or allow you to receive updates through an electronic, on-line bulletin board.

### **Software Copyright**

- Be aware on software copyright issues
- Freeware
- Shareware



What about software that you find on the Internet?

- Software site licenses

### **Software Copyright**

- ❖ If your computer system holds information about individuals then you have a moral and legal duty to treat that information with respect.
- ❖ In a free society you have a right to ensure that information held about you is not abused.
- ❖ In many countries this right is enshrined under data protection laws

### **Important Facts**

1. Father of Computer – Charles Babbage
2. Father of Internet – Glen Reckolt
3. Father of Computer Science – Alen Turing
4. Memory – 4 bits = 1 Nibble  
8 bits = 1 byte  
1024 bytes = 1 Kilo bytes  
1024 Kilo bytes = 1 Mega byte  
1024 Mega byte = 1 Giga byte  
1024 Giga byte = 1 Tera byte
5. Hot mail service started by – Sabir Bhatia
6. High level languages – COBOL, FORTRAN, C, C++, JAVA, BASIC etc.
7. TCP stands for – Transmission control
8. ISP – Internet Service Protocol
9. E-mail – Electronic Mails
10. E-mail introduced by – Ray Tomilinson
11. VIRUS – Vital Information Resources Under Siege
12. ENIAC – Electronic Numerical Integrator and Calculator
13. BASIC – Beginners All Purpose Symbolic Instruction Code
14. COBOL – Common Business Oriented Language
15. FORTRAN – Formula Translation
16. IBM – International Business Machine
17. PC – Personal Computer
18. VAN – Value Added Network
19. Calculator invented by – Blaise Pascal
20. Autobiography of Charles Babbage – “Passage from life of a philosopher”
21. First woman computer programmer – Ada Lovelace
22. Punch Card System in computer introduced by Hermen Hollerith

23. CD Roms first introduced by – Japan
24. First Computer – ENIAC; Invented by John W Manchly and John Presper
25. The book “The Road Ahead” is written by Bill Gates (Chairman of Microsoft)
26. Windows 95, 98 and 2000 programmed by – Bill Gates
27. First Electro Mechanical Computer – Mark 1
28. Mark 1 introduced by – Howard Aikon
29. First computer in India – HEC – 2M (in Calcutta – 1955)
30. First Technopark in India – Trivandrum, 1990
31. First super computer in India – CRAY – X – MP – 14
32. Computer which defeated Gary Kasparov at Chess – Deep Blue
33. First computer game – Space War
34. Device used for moving the cursor – Mouse
35. Mouse invented by – Douglas Cael Engelbary
36. PASCAL language creator – Niklans Writh
37. Super computer invented by – Segmour Erey
38. MS Word – Used for creating text documents
39. MS Excel – Used for creating worksheet
40. MS Access – A data base management system data storage
41. MS Powerpoint – for creating presentations
42. ORACLE – A data base package for strong data
43. Pagemaker – A Desktop Publishing package for preparing book sets
44. Photoshop – Software for editing pictures
45. ‘C’ language created – Dennis M Ritchie
46. Language used on Internet – JAVA
47. First private internet service – Satyam Infoway Ltd.
48. First personal computer – The Altair, 1975
49. First computer animated news reader – Ananova (Russia)
50. Memory of Super Computer – 256 MB
51. ‘DELPHI’ is the modified version of which language – PASCAL
52. ADC – Advanced Data Control
53. Windows NT – A 32 bit operation system
54. Most widely PC operation system – MS Dos
55. Calculations performed in a computer – ALU (Arithmetic and Logic Unit)
56. Device commonly used while playing games with computer – Joystick
57. First super computer in India developed by C DAC – Param 10000

58. Father of cellular phone – Martin Cooper
59. Father of Industrial Robots – Joseph F. Engelberger
60. Fastest super computer – Earth Stimulator (Japan)
61. World's largest computer chip maker – Intel Corporation
62. Floppy Disc invented by – Alan Shugart
63. The step used for starting a new document – Alt + FN
64. The step used for printing – Ctrl + P
65. To open task list, press the keys – Ctrl + Esc
66. The step used to save – Ctrl + S
67. 'Cogo' is a programming language used by – Engineers
68. 'Buddy System' in a computer is associated with – The task managing system
69. Drag and drop can be used with – Mouse only
70. The process of identification and removal of localised implementation errors from a system is called – Debugging
71. Domain name for a government department – gov
72. The longest key in a computer key board is – Space bar
73. 'Digitizer' is a device that – convert digital information into analog
74. ERNET stands for – Educational Research Network
75. Web pages uses language – HTML
76. Standard language used on internet – JAVA
77. A security methods that identifies a specific authorised used of a computer system – Password
78. The act of saving a web document for future access – Book Mark
79. A reasonable measurement of RAM – 512 MB
80. An error in computer data is called – Bug
81. An illegal copying of software for distribution is called – Piracy
82. A half byte is known as – Nibble
83. A group of signal lines used to transmit data in parallel from one element of a computer to another is – Data Bus
84. Bulk Memory – is another name for backing store
85. A plastic card similar to credit card but having some memory and a micro processor embedded within it is – Chip Card
86. The most common binary code in used today is – ASCII (American Standard Code for Information Interchange)
87. Chip is an input device
88. A computer program that converts assembly language to machine language is – Assembler

89. The earliest calculating device still in used is the – ABACUS
90. ABACUS is also known as – SOROBAN
91. A medium that transfers data between two locations is called – Communication Channle
92. PC (Personal Computer) is also called – Advanced Computer
93. Desktop Computer is called personal computer because – only one person can use it at any point of time
94. In computer terminology, information means – Data in more useful or intelligible form
95. Computer literacy means – knowing what a computer can and cannot do
96. The primary memory of a Pc consists of – Both ROM and RAM
97. While buying a PC system, you should first – Define your computing needs
98. The most popular type of specialised device for micro computer is – Mouse
99. To Copy – Ctrl + C
100. To Save – Ctrl + S
101. To Bold – Ctrl + B
102. To Underline – Ctrl + U
103. To Paste – Ctrl + V

### **Important Questions and Answers**

1. <http://www.indiabix.com> - is an example of what?
 

<b>a) A URL</b>	b) An access code
c) A directory	d) A server
2. How many bits is a byte?
 

a) 4	<b>b) 8</b>
c) 16	d) 32
3. The speed of your net access is defined in terms of...
 

a) RAM	b) MHz
<b>c) Kbps</b>	d) Megabytes
4. The "desktop" of a computer refers to:
 

<b>a) The visible screen</b>	b) The area around the monitor
c) The top of the mouse pad	d) The inside of a folder
5. Which of these is a search engine?
 

a) FTP	<b>b) Google</b>
c) Archie	d) ARPANET
6. The letters, "DOS" stand for...
 

a) Data Out System	b) Disk Out System
c) Disk Operating System	<b>d) Data Operating System</b>

7. What does CPU stand for?  
 a) Cute People United                      b) Commonwealth Press Union  
 c) Computer Parts of USA                **d) Central Processing Unit**
8. Modem stands for...  
**a) Modulator Demodulator**            b) Monetary Devaluation Exchange Mechanism  
 c) Memory Demagnetization            d) Monetary Demarkation
9. A JPG is...  
 a) A Jumper Programmed Graphic    **b) A format for an image file**  
 c) A type of hard disk                      d) A unit of measure for memory
10. What do you call a computer on a network that requests files from another computer?  
**a) A client**                                      b) A host  
 c) A router                                        d) A web server
11. RAM stands for...  
**a) Random Access Memory**            b) Really Annoying Machine  
 c) Read A Manual                              d) Real Absolute Memory
12. Which is not an internet protocol?  
 a) HTTP    b) FTP  
**c) STP**    d) IP
13. Which of the following is not a valid domain name?  
 a) www.yahoo.com                          b) www.yahoo.co.uk  
**c) www.fr.yahoo**                              d) Www.yahoo.fr
14. "www" stands for...  
**a) World Wide Web**                          b) World Wide Wares  
 c) World Wide Wait                          d) World Wide War
15. ROM stands for...  
 a) Royal Ontario Museum                **b) Read Only Memory**  
 c) Read on Monday                          d) Real Obsolute Memory
16. HTML is used to...  
 a) Plot complicated graphs                **b) Author webpages**  
 c) Translate one language into another    d) Solve equations
17. Another word for the CPU is...  
 a) Execute                                      **b) Microprocessor**  
 c) Micro chip                                  d) Decode
18. What kind of data can you send by e-mail?  
 a) Audio    b) Pictures



- c) Input **d) Storage**
30. What is part of a database that holds only one type of information?  
 a) Report **b) Field**  
 c) Record d) File
31. "OS" Computer abbreviation usually means?  
 a) Order of Significance b) Open Software  
**c) Operating System** d) Optical Sensor
32. MOV extension refers usually to what kind of file?  
 a) Image file **b) Animation/movie file**  
 c) Audio file d) MS Office document
33. Which is a type of Electrically-Erasable programmable Read-Only Memory?  
**a) Flash** b) Flange  
 c) Fury d) FRAM
34. MPG extension refers usually to what kind of file?  
 a) Word Perfect Document file b) MS Office document  
**c) Animation/Movie file** d) Image file
35. DB computer abbreviation usually means?  
**a) Database** b) Double Byte  
 c) Data Block d) Driver Boot
36. INI extension refers usually to what kind of file?  
 a) Image file **b) System file**  
 c) Hypertext related file d) Image Colour Matching Profile file
37. What do we call a network whose elements may be separated by some distance? It usually involves two or more small networks and dedicated high-speed telephone lines.  
**(a) LAN (Local Area Network)** b) WAN (Wide Area Net Work)  
 c) URL (Universal Resource Locator d) WWW (World Wide Web)
38. TMP extension refers usually to what kind of file?  
 a) Compressed Archive File b) Image File  
**c) Temporary File** d) Audio File
39. What do we call a collection of two or more computers that are located within a limited distance of each other and that are connected to each other directly or indirectly?  
 a) Internet b) Intranet  
**c) Local Area Network** d) Wide Area Network
40. JPG extension refers usually to what kind of file?

