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COMPUTER EDUCATION & SKILL DEVELOPMENT

Fully Recognised Institute of NIELIT
Since 1993

HARDWARE (ICT) CLASS – 3RD (PARTS OF REAR PANEL)

LAST CLASS : PART OF THE FRONT PANEL

- 1. POWER BUTTON**
- 2. RESET BUTTON (RESTART BUTTON)**
- 3. FLOPPY DRIVE**
- 4. ZIP DRIVE**
- 5. OPTICAL DRIVE**
- 6. INDICATOR LIGHTS**
- 7. USB PORTS**
- 8. HEADPHONE/ MIC PORTS**
- 9. TURBO BUTTON**



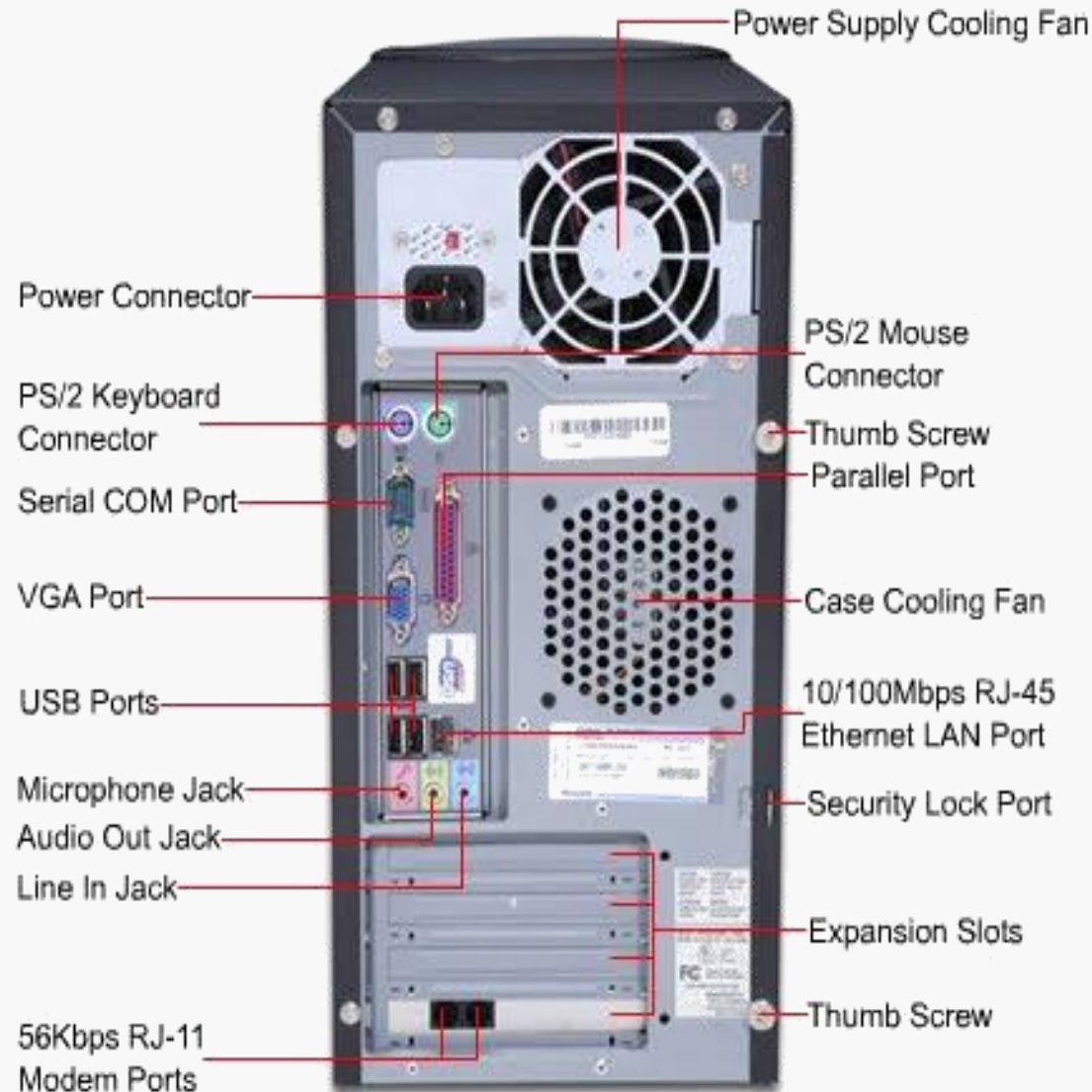
PART OF THE REAR PANEL



- Rear Panel : The **back panel** is the portion of the motherboard that allows you to connect external devices, such as your monitor, speakers, keyboard, and mouse. As can be seen in the picture below, the back panel is on the edge of the motherboard. When installing the motherboard, this side of the motherboard would be on the back side of the case and is inserted into the cases I/O plate.



PART OF THE REAR PANEL



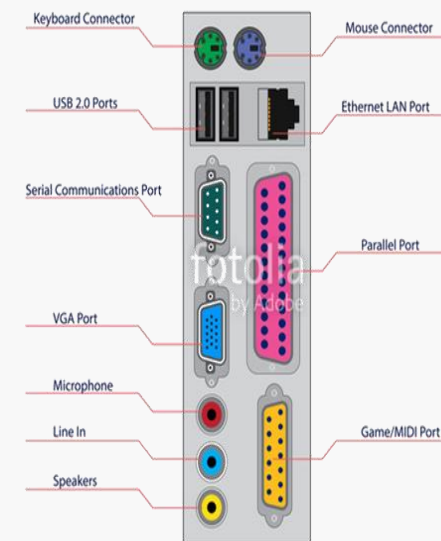
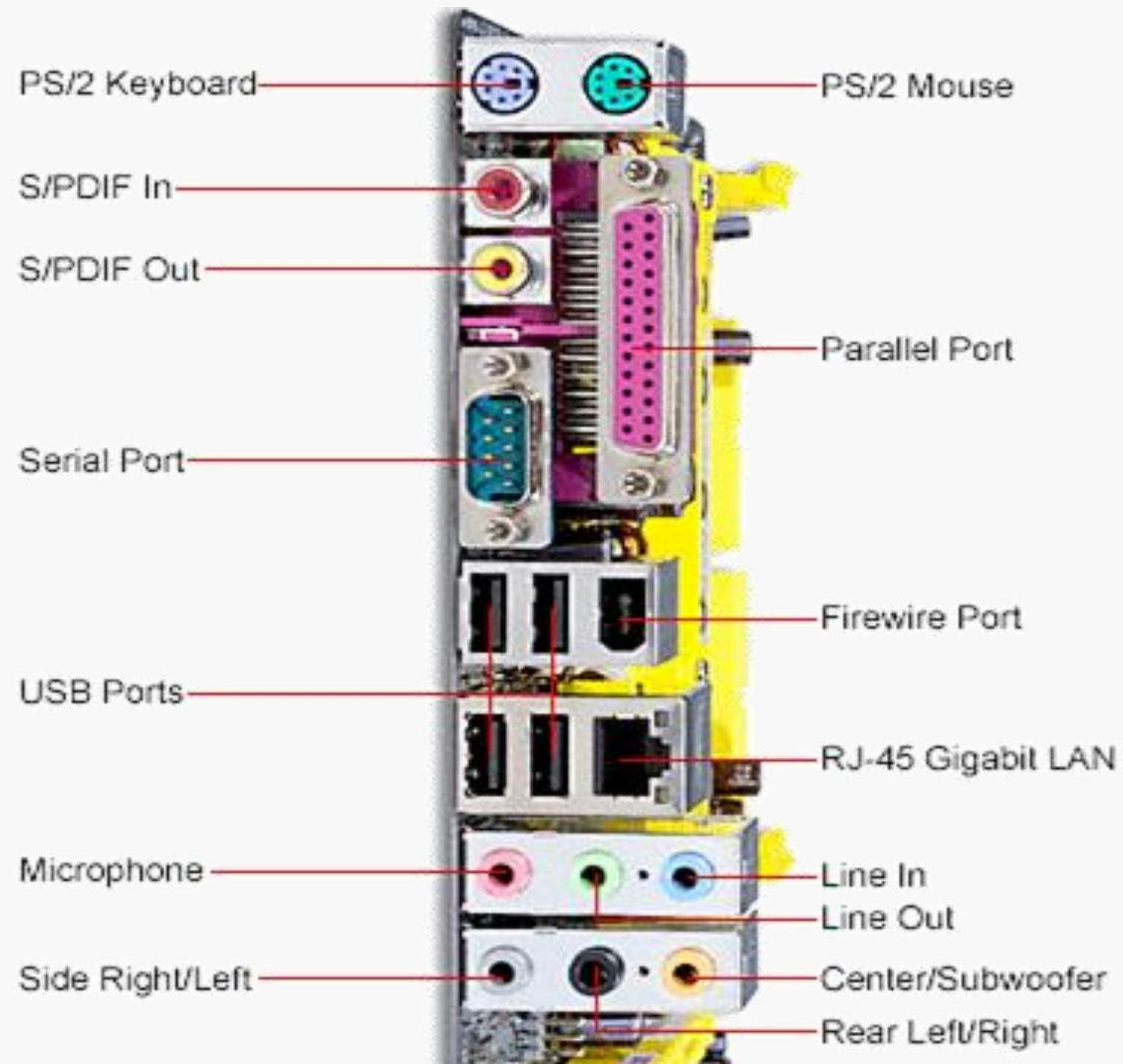
REAR PANEL PORTS & SLOTS

1. Power Supply Cooling Fan –
2. Power Connector –
3. PS2 Port –
4. Serial Port
5. Parallel Port –
6. VGA Port –
7. USB Port –
8. Firewire port
9. Ethernet Lan Port (RJ45 Port) –
10. Microphone/Audio Port –
11. Expansion Slots – (Graphic Card / Sound Card / Midi Port /Game Port /Modem Port / Etc.)

PART OF THE REAR PANEL

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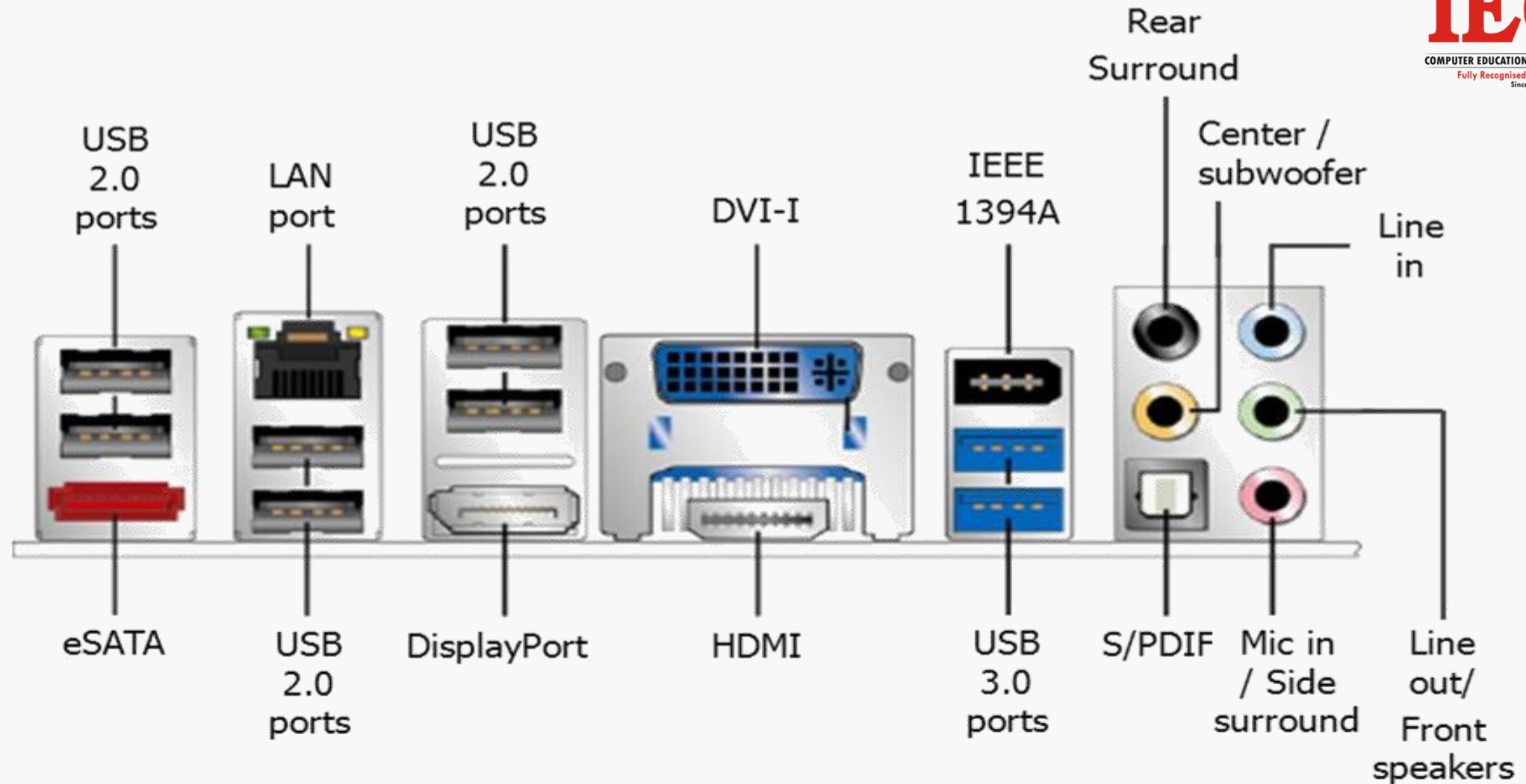
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PART OF THE REAR PANEL (NEW PC)

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PART OF THE REAR PANEL

- **Power Supply Cooling Fan (CPU fan)** - a fan located on top of a computer processor. Helps to pull and blow hot air off the processor, helping keep it cooler. Power supply fan - a fan located inside a power supply. The power supply fan blows hotter air out of the power supply and out of the computer
- **Power connectors** - are devices that allows an electrical current to pass through it for the exclusive purpose of providing **power** to a device (not a data stream, for example, or anything more complex). ... **Power connectors** can carry either an alternating current (AC) or direct current (DC).
- **Serial port** - is an interface that allows a PC to transmit or receive data one bit at a time. It is one of the oldest types of interfaces and at one time was commonly used to connect printers and external modems to a PC. Modern serial ports are used in scientific instruments. Compared to a parallel port, the data transfer rate of a serial port is slower.



PART OF THE REAR PANEL

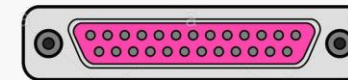
- **Parallel port** - is a type of interface found on computers for connecting peripherals. The name refers to the way the data is sent; parallel ports send multiple bits of data at once, as opposed to serial interfaces that send bits one at a time. To do this, parallel ports require multiple data lines in their cables and port connectors and tend to be larger than contemporary serial ports which only require one data line. The **parallel port** is found on the back of computers and is a 25-pin (type **DB-25**) computer interface commonly used to connect printers to the computer.



Serial Port



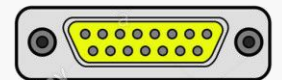
Parallel Port



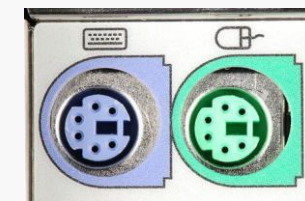
PS/2 Port



Games Port



- **PS/2 Port** - is a type of port used by older computers for connecting input devices such as keyboards and mouse. The port was introduced with IBM's Personal System/2 computer in 1987 (which was abbreviated "PS/2"). In the following years, the PS/2 port became the standard connection for keyboards and mice in all IBM compatible computers. The PS/2 port has six pins and is roughly circular in shape. The PS/2 mouse connector generally replaced the older DE-9 RS-232 "serial mouse" connector,



PART OF THE REAR PANEL

- **VGA port** - A **Video Graphics Array** or **Video Graphics Adapter connector** is a three-row 15-pin DE-15 connector developed by IBM and introduced in 1987. The 15-pin VGA connector was provided on many video cards, computer monitors, laptop computers, projectors, and high definition television sets. VGA provides 640 x 480 resolution color display screens with a refresh rate of 60 Hz and 16 colors displayed at a time. If the resolution is lowered to 320 x 200, 256 colors are shown.
- **USB (Universal Serial Bus)** - is the most popular connection used to connect a computer to devices such as digital cameras, printers, scanners, and external hard drives. USB is a cross-platform technology that is supported by most of the major operating systems. The first commercial release of the Universal Serial Bus (version 1.0) was in January 1996. and is capable of supporting up to 127 peripheral devices.

VGA cable



VGA connector



ComputerHope.com

USB cable and port



ComputerHope.com

Connectors	<u>USB 1.0</u> 1996	<u>USB 2.0</u> 2001	<u>USB 3.0</u> 2011	<u>USB 3.1</u> 2014	<u>USB 3.2</u> 2017	<u>USB4</u> 2019
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PART OF THE REAR PANEL

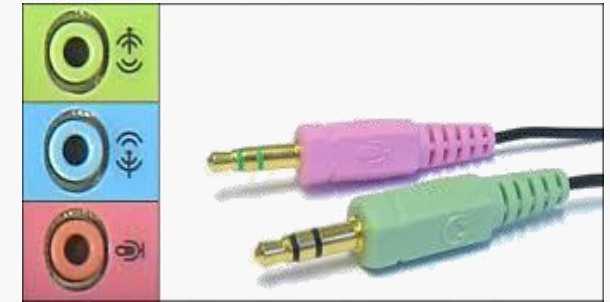
- **Fire Wire port** - Along with USB, Firewire (also called IEEE 1394) is another popular connector for adding peripherals to your computer. Firewire is most often used to connect digital camcorders, external hard drives, and other devices that can benefit from the high transfer rates (up to 480 Mbps) supported by the Firewire connection. **IEEE 1394** is an interface standard for a serial bus for high-speed communications and isochronous real-time data transfer. It was developed in the late 1980s and early 1990s by Apple, which called it **FireWire**, in cooperation with a number of companies, primarily Sony and Panasonic. The 1394 interface is also known by the brands **I. LINK** (Sony), and **Lynx** (Texas Instruments).
- **Ethernet port** - An Ethernet port a jack on a computer that allows the use of an Ethernet connector. They are the most popular sort of connection computer that is utilized in a LAN. An Ethernet port is usually found on networking devices, including computers, routers, video game consoles, modems, and televisions. These ports are very similar to a regular phone jack. An Ethernet port accepts a cable that has an RJ-45 connector.
- **High Definition Multimedia Interface, HDMI** - is a connector and cable capable of transmitting high-quality and high-bandwidth streams of audio and video between devices. The HDMI technology is used with devices such as an HDTV, Projector, DVD player, or Blu-ray player. The picture is an example of an HDMI cable from Media bridge.
- **S/PDIF (Sony/Philips Digital Interface)** - is a type of digital audio interconnect used in consumer audio equipment to output audio over reasonably short distances. The signal is transmitted over either a coaxial cable with RCA connectors or a fiber optic cable with TOSLINK connector

Firewire/ IEEE 1394 port



PART OF THE REAR PANEL

- **Headphone/ Mic Ports :** An **audio port** on a **computer** is any receptacle or **jack** to which an **audio** device such as speakers, **headphones** or a microphone can be connected. All laptops and some desktops have built-in speakers, but for better sound or privacy, you will need to connect external **audio** through one of the **ports**. Unless your **computer** is very old, the jacks are **color-coded** green for line-out -- for speakers or **headphones** -- blue for line-in and pink for a microphone. The microphone and speaker jacks may also have small images next to them.
- **Expansion port** - Alternatively known as a **bus slot** or **expansion port**, an **expansion slot** is a connection or port inside a computer on the motherboard or riser card. It provides an installation point for a hardware expansion card to be connected. For example, if you wanted to install a new video card in the computer, you'd purchase a video expansion card and install that card into the compatible expansion slot. List of Expansion card is Interface card (ATA, Bluetooth, EIDE, FireWire, IDE, parallel, RAID, SCSI, serial, and USB), Modem, MPEG Decoder, Network Card, Sound Card, Video capture card, Video Card.



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THANK'S

NEXT CLASS (INSIDE THE SYSTEM UNIT)