EXPERIMENT 2	COMPUTER CONFIGURATION & UPGRADES: MEMORY, HARD DRIVE, VIDEO, MODEM/NETWORK, DISK DRIVES, SCSI, SPECIALIZED INTERFACE DEVICES.
Date:	

AIM

To perform computer configuration upgrades by installing and upgrading hardware components such as memory, hard drive, video card, modem, disk drive, SCSI, and specialized interface devices in a computer system.

REQUIREMENTS

1. Desktop computer system
2. RAM modules
3. Hard Disk Drive (HDD) / Solid State Drive (SSD)
4. Video / Graphics card
5. Modem / Network Interface Card
6. CD/DVD Disk Drive
7. SCSI device (if available)
8. Specialized interface devices (Sound card / USB expansion card, etc.)
9. Phillips screwdriver
10. Anti-static wrist strap
11. SATA and power cables
12. Clean working table
13. Screw container

PROCEDURE / PROGRAM

a. Preparation and Safety

i. Switch OFF the computer system and unplug the power cable.
ii. Press the power button for 5–10 seconds to remove residual power.
iii. Wear an anti-static wrist strap to avoid electrostatic discharge.
iv. Place the system unit on a clean working table.

b. Opening the System Unit

i. Remove the side panel of the cabinet using a screwdriver.

ii. Identify the motherboard, RAM slots, storage bays, and expansion slots.

c. Memory (RAM) Upgrade

i. Locate the RAM slots on the motherboard.
ii. Release the locking clips on the RAM slot.
iii. Remove the old RAM module carefully.
iv. Insert the new RAM module properly and press until the clips lock.

d. Hard Drive Upgrade

i. Identify the hard disk drive bay.
ii. Mount the HDD/SSD securely in the drive bay.
iii. Connect the SATA data cable to the motherboard.
iv. Connect the power cable from the SMPS to the drive.

e. Video Card Installation

i. Identify the PCI/PCIe expansion slot.
ii. Insert the video card firmly into the slot.
iii. Secure the card using screws.

f. Modem / Network Card Installation

i. Select the appropriate expansion slot.
ii. Insert the modem or network interface card carefully.
iii. Tighten the card using screws.

g. Disk Drive Installation

i. Insert the CD/DVD drive into the front drive bay.
ii. Fix the drive using screws.
iii. Connect the data and power cables properly.

h. SCSI (Small Computer System Interface) and Specialized Interface Devices

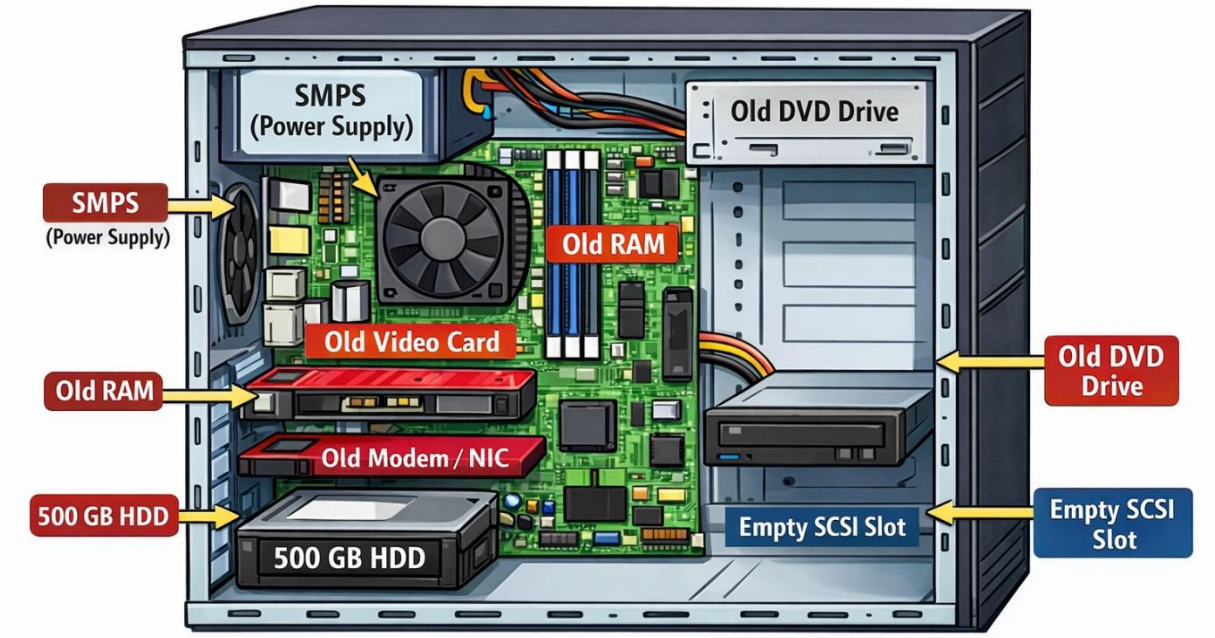
i. Insert the SCSI or specialized interface card into the appropriate slot.
ii. Connect the necessary internal or external cables.

i. System Reassembly and Testing

i. Re-check all cable connections and component fittings.
ii. Close the cabinet side panel properly.
iii. Connect the power cable and peripherals.
iv. Switch ON the system.
v. Verify the upgraded components using BIOS/Operating System.

SAMPLE OUTPUT

Before Upgrade Output



Computer Configuration Upgrade Output

Figure 1: RAM Upgrade

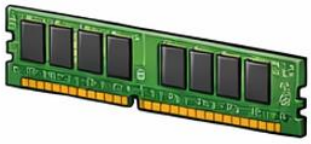


Figure 2: Hard Disk / SSD Installation



Figure 3: Video Card Installation



Figure 4: Modem / Network Card

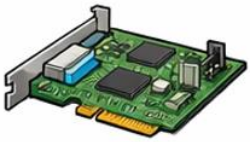


Figure 4: Video Card Installation



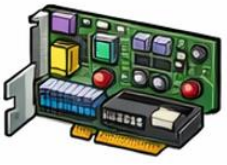
Figure 5: Disk Drive Installation



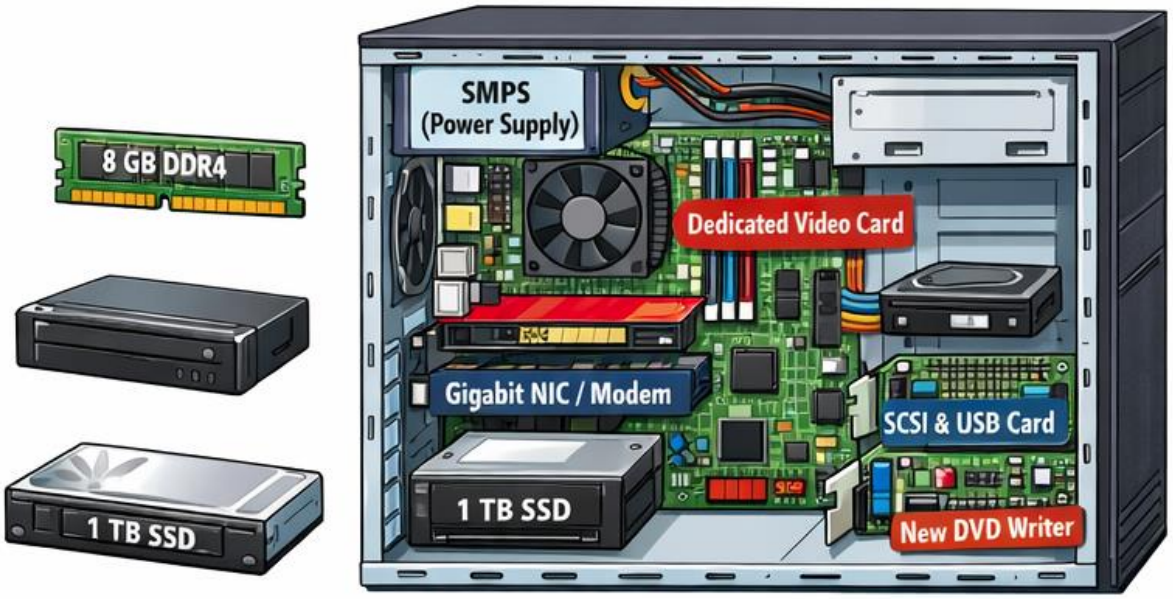
Figure 6: Specialized Installation



Figure 6: Specialized Interface Devices



After Upgrade Output



RESULT

The experiment on computer configuration upgrades including memory, hard drive, video card, modem, disk drive, SCSI, and specialized interface devices was conducted successfully, and the upgraded system was executed and output verified.