#### HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

### P.G.D.C.A. SEMESTER - II

# DCA-209 : Computer Assembling and Hardware Maintenance

Teaching Scheme (per week)		Examination Scheme					
		INT		EXT		TOTAL	
Th.	Pr.	Th.	Pr.	Th.	Pr.	Th.	Pr.
(hours)	(hours)	(marks)	(marks)	(marks)	(marks)	(marks)	(marks)
	03		20	-	30	-	50

## **University Examination Duration : 3 Hours (Per Batch)**

- 1. Hardware Fundamentals.
  - Function of Computer.
  - To identify the different parts of computer and peripherals.
  - Function of...
    - i. Power Supply Unit.
    - ii. Motherboard
    - iii. Central Processing Unit with heat sink.
    - iv. Other Chipset.
    - v. RAM Random Access Memory & ROM Read Only Memory.
    - vi. BIOS Basic Input / Output System.
    - vii. CMOS IC.
    - viii. Different types of Buses (ISA & PCI) and Connectors.
    - ix. Different types of I/O Ports.
    - x. Jumpers.
    - xi. Display Card.
    - xii. HDD Hard Disk Drive.
    - xiii. FDD Floppy Disk Drive.
    - xiv. CD-ROM Disk & Disk Drive.
    - xv. DVD Digital Versatile Disk.
    - xvi. NIC Network Interface Card.
    - xvii. Sound Card.
    - xviii. Other Add-ON Cards.
    - xix. Keyboard & Mouse.
    - xx. MODEM.
    - xxi. Printers & Plotters
    - xxii. Scanner
    - xxiii. Different types of Computer batteries.
    - xxiv. Different types of Screws.

## 2. Computer Assembling and Configuration.

### Assembling:

- i. Collect the proper/required computer parts and tools.
- ii. Sequence steps to assemble a computer as per guidelines provided by the expert.
- iii. Steps for upgrading a computer system.

### **Configuration:**

• Run CMOS setup utility and configure computer system.

## 3. Operating System Fundamentals.

- To identify the basic feature of different types of Operating Systems (DOS, Windows 9X, Windows NT, Windows 2000).
- 4. Operating System Installation and Configuration.
  - Select the operating system
  - Start installation as per guidelines provided by the expert.
  - Configure/install peripherals and its device drivers.

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- 5. Troubleshooting and Preventive Maintenance.
  - To identify the proper area of error / trouble / Fault.
  - To identify the software / Hardware error.
    - Software Error.
      - Installation Problem
      - Booting Problem
      - Device Driver Problem
      - File Corruption
      - Virus Problem
      - Memory Problem
    - Hardware Error.
      - Power Problem
      - Short-Circuit
      - Fusing / Burning Problem
      - Display Problem
      - Memory Problem
      - Mal functioning
  - Solve it as per guidelines provided by the expert.
- \* The journal must be prepared for the external Examination.