

Daffodil Polytechnic Institute, Institute Code: 50238

Lesson Plan – Academic session: August 2023 – December 2023

Subject Teacher : Soma Rani Das (Sr. Instructor)
 Subject Name : Computer Peripherals.
 Subject Code : 28543
 Technology : Computer
 Semester : 4th
 BTEB Text Book Name : Computer Peripherals. (Haque Prokashoni)
 Reference Book Name : Haque Prokashoni

Subject Aims:

To develop knowledge and skill on Computer Peripherals.
 To develop knowledge and skill to create and apply of Computer Peripherals.

Subject Outcome:

Basics Computer Peripheral interface and peripherals; Input-Output devices; Display devices; Special I/O devices; Disk, disk drives and controllers.

	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's
1.	BASICS OF INTERFACING	1.1 Define peripheral and interfacing with example. 1.2 State the functions and necessity of interfacing.	1. To know about peripheral and interfacing 2. To know about functions and necessity of interfacing.	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
2.	BASICS OF INTERFACING	1.3 State the Categories of interface(Memory interface, I/O	1.To know Memory interface, I/O port/latch interface	1. Projector. 2. Computer. 3. Internet. 4. Keyboard

Marks	Grade Point	Letter Grade	Marks	Grade Point	Letter Grade
80>	4.00	A+	55-59	2.75	B-
75-79	3.75	A	50-54	2.50	C+
70-74	3.50	A-	45-49	2.25	C
65-69	3.25	B+	40-44	2.00	D
60-64	3.00	B	0-39	0.00	F

Mark Distribution (for 200 Marks)			
Theory Marks		Practical Marks	
Midterm	30	PC	25
Class test	10	PF	25
Quiz test	05		
Attendance	15		
Final	90		
Total	150	Total	50

Class Timing Distribution	
Particulars	Time
Greeting with students	05 Minutes
Previous Class Review	10 Minutes
Present Class Topic Discussion and Lecture Delivery	30 Minutes
Practice Session	30 Minutes
Question answer	10 Minutes
Present Class Topics Review	05 Minutes

		port/latch interface, peripheral interface . 1.4 State the function of each category of interface with example.	2. To know about Inter system communication interface, System overhead interface	YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
3.	Disassemble and reassemble a LED monitor/display unit (Practical)	1.1 Choose a place and clean the place 1.2 Collect a LED monitor 1.3 Collect the tools 1.4 Unscrew/unlock the monitor 1.5 Open the back cover 1.6 Identify and separate the components 1.7 Reassemble the monitor 1.8 Clean the workplace	1. To know Disassemble and reassemble a LED monitor.	1. LED monitor
4.	BASICS OF INTERFACING	1.4 Mention the methods of peripheral interfacing. 1.5 State the steps of analog and digital interfacing in a computer system.	1. To know methods of peripheral interfacing. 2. To know about I/O port. 3. To know analog and digital interfacing	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
5.	BASICS OF INTERFACING	1.6 State the elements of interface. 1.7 Describe the function of a general purpose parallel interface with block diagram.	1. To know about elements of interface 2. To know parallel interface.	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
6.	Troubleshoot and replace the defective parts of a LED monitor/display unit. (Practical)	2.1 Choose a place and clean the place 2.2 Collect a faulty LED monitor 2.3 Collect the tools 2.3 Unscrew/unlock the monitor 2.4 Open the back cover 2.5 Find out the faulty parts and replace	1. Troubleshoot and replace the defective parts of a LED monitor	1. LED monitor

		2.6 Reassemble the monitor 2.7 Clean the workplace		
7.	Quiz Test-1			
8.	OPERATION OF SERIAL INTERFACES	2.1 State the necessity of serial interfacing.	1. To know necessity of serial interfacing. 2. To know block data format for a serial interface	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
9.	Install and configure printers (Laser, Dot matrix, Inkjet, POS printers) (Practical)	3.1 Collect a specific printer 3.2 Connect the power cable to power line 3.3 Connect data cable to the computer 3.4 Plug and power on computer and printer 3.5 Install the printer from PnP features or manually 3.6 Configure the printer and print a test page 3.7 Clean the workplace	1.To know Install and configure printers	1. Laser, Dot matrix, Inkjet, POS printers)
10.	OPERATION OF SERIAL INTERFACES	2.3 Describe the operation of asynchronous serial interface with block diagram (UART). 2.4 Describe the operation of synchronous serial interface with block diagram.	1. To Know about asynchronous serial interface	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
11.	OPERATION OF SERIAL INTERFACES	2.5 Distinguish the Characteristics of asynchronous and synchronous serial interface. 2.6 Describe the operation of an USART with block diagram.	1. To Know Characteristics of asynchronous and synchronous serial interface. 2. To know operation of an USART .	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek

		2.7 Describe the operation of RS 232.C/v.24 standard serial interface with block		
12.	Class Test-1	Chapter -1 & 2	Marks-10	
13.	OPERATION OF KEYBOARD AND MOUSE	3.1 Describe the construction and operation of mechanical, membrane, capacitive and Hall effect key switches.	1. Operation of mechanical, membrane, capacitive and Hall effect key switches	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
14.	OPERATION OF KEYBOARD AND MOUSE	3.1 State the terms: bouncing, n-key rollover and n-key lockout. 3.3 State the function of Keyboard Encoder. 3.4 Describe the working principle of an optical and wireless mouse.	1. To know operation of keyboard encoder. 2. To know bouncing, n-key rollover and n-key lockout..	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
15.	Quiz Test-2			
16.	OPERATION OF DISPLAYS AND ADAPTERS.	4.1 Classify the display devices. 4.2 Describe the working principle of LCD and LED display unit using Block diagram.	1. To know operation of display adapter. 2. To know operation of LCD.	1. Projector. 2. Computer. 3. Internet. 4. Keyboard YouTube link: https://www.youtube.com/watch?v=r5tDUX8t9ek
17.	OPERATION OF DISPLAYS AND ADAPTERS	4.3 State the meaning of the terms-pixel, scanning, Horizontal and Vertical scanning, interlace and non- interlace scanning	1. To know operation of display adapter.	1. Projector. 2. Computer. 3. Internet. 4. Keyboard
18.	Repair and / or replace power supply unit of printers(Laser, Dot & Inkjet printer) (Practical)	6.1 Choose a place and clean the place 6.2 Collect a faulty printer 6.3 Disassemble the Printer 6.4 Clean the power supply unit	1. To know Repair and / or replace power supply unit of printers(Laser, Dot & Inkjet printer)	Laser, Dot & Inkjet printer

		6.5 Identify the damaged parts/components 6.6 Replace the parts/component 6.7 Reassemble the power supply unit 6.8 Reassemble the printer 6.9 Clean the workplace		
19.	OPERATION OF DISPLAYS AND ADAPTERS	4.4 Describe the general structure of a modern video display adapter/ graphics adapter. 4.5 Prepare the specification of a LCD and LED monitor.	1. To know operation of display adapter. 2. To know operation of LCD.	1. Projector. 2. Computer. 3. Internet. 4.Keyboard
20.	CONSTRUCTIONAL AND OPERATIONAL FEATURE OF DOT MATRIX PRINTERS	5.1 Classify printers. 5.2 State the feature of a dot-matrix printer. 5.3 Describe the operation of a dot matrix printer . 5.4 Describe the operation of a dot matrix printer.	1. To know operation of Printers and dot matrix printers.	1. Projector. 2. Computer. 3. Internet. 4.Keyboard
21.	CONSTRUCTIONAL AND OPERATIONAL FEATURE OF DOT MATRIX PRINTERS	5.5 Describe the operation of the head driving circuit in a dot matrix printer. 5.6 Mention the advantages and disadvantages of dot matrix printers. 5.7 Prepare the specification of a dot matrix printer.	1. To know operation of Printers and dot matrix printers	1. Projector. 2. Computer. 3. Internet. 4.Keyboard
22.	Class Test-2	Chapter-4	Marks-10	

23.	CONSTRUCTIONAL AND OPERATIONAL FEATURE OF PLOTTERS	<p>6.1 State the features of plotter.</p> <p>6.2 List the uses of plotter. 6.3 Classify plotters.</p> <p>6.4 List the Major parts and components of a plotter.</p> <p>6.5 Describe the operation of a plotter.</p> <p>6.6 Mention the advantages and disadvantages of plotters.</p> <p>6.7 Prepare the specification of a plotter.</p>	1. To know operation of Printers and dot matrix printers	<p>1. Projector.</p> <p>2. Computer.</p> <p>3. Internet.</p> <p>4. Keyboard</p>
24.	OPERATION OF INKJET PRINTERS	<p>7.1 State the principle of inkjet and bubble jet formation for printing.</p> <p>7.2 Describe the operation of an inkjet printer.</p> <p>7.3 List the Major parts and components of an inkjet printer.</p> <p>7.4 Mention the advantages and disadvantages of an inkjet printer.</p> <p>7.5 Prepare the specification of an inkjet printer.</p>	1. To know operation of Printers and ink-jet printers.	<p>1. Projector.</p> <p>2. Computer.</p> <p>3. Internet.</p> <p>4. Keyboard</p>
25.	OPERATION OF LASER PRINTERS	<p>8.1 State the meaning of LASER.</p> <p>8.2 Describe the operation of a LASER printer.</p> <p>8.3 List the Major parts and components of a LASER printer.</p>	1. To know operation of Printers and ink-jet printers.	<p>1. Projector.</p> <p>2. Computer.</p> <p>3. Internet.</p> <p>4. Keyboard</p>
26.	Quiz Test-3			

27.	OPERATION OF LASER PRINTERS	8.5 Mention the advantages and disadvantages of an LASER printer. 8.6 Prepare the specification of a LASER printer.	1. To know operation of LESER printers.	1. Projector. 2. Computer. 3. Internet. 4. Keyboard
28.	Install and perform operation of OMR and OCR devices. (Practical)	9.1 Collect OMR and OCR devices 9.2 Connect the power cable to power line 9.3 Power on of OMR/OCR devices 9.4 Connect OMR/OCR to the computer 9.5 Install the OMR/OCR from PnP features or manually 9.6 Configure and test the of OMR/OCR devices 9.7 Clean the workplace	1. To know Install and perform operation of OMR and OCR devices.	1. OMR and OCR devices.
29.	FEATURE AND OPERATIONAL OF POS	9.1 State the meaning of POS. 9.2 List the uses of POS. 9.3 List the Major parts and components of POS. 9.4 Prepare the specification of a LASER printer..	1. To know operation of LESER printers	1. Projector. 2. Computer. 3. Internet. 4. Keyboard
30.	CHARACTERISTICS OF SPECIAL TYPE I/O DEVICES	10.1 List the special types of I/O devices. 10.2 State the characteristics of joy-stick and digitizer. 10.3 Describe the working principle of light pen.	1. To know Joystick, digitizer, Touch Screen, Plotter, Line Printer and light pen.	1. Projector. 2. Computer. 3. Internet. 4. Keyboard
31.	CHARACTERISTICS OF SPECIAL TYPE I/O DEVICES	10.4 Define scanner. 10.5 Classify scanner. 10.6 Describe the operation of a flatbed scanner.	1. To know Multimedia projector, CC Camera, IP Camera, DVR and	1. Projector. 2. Computer. 3. Internet. 4. Keyboard

		10.7 State the uses of hand held scanner.		
32.	CHARACTERISTICS OF OPTICAL I/O DEVICES	11.1 Define OMR, OCR, ICR and MICR. 11.2 Describe the characteristics of OMR, OCR, ICR and MICR. 11.3 Describe the advantages and limitations of MICR. 11.4 Prepare the specification of a Multimedia Projector.	To know OMR, OCR, ICR and MICR, the advantages and limitations of MICR, Multimedia Projector	1. Projector. 2. Computer. 3. Internet. 4. Keyboard
33.	CHARACTERISTICS OF OPTICAL I/O DEVICES	11.5 Classify Multimedia Projector. 11.6 Describe the operation of a Multimedia Projector. 11.7 List the major parts and components of Multimedia Projector.	To know operation of a Multimedia Projector, major parts and components of Multimedia Projector	1. Projector. 2. Computer. 3. Internet. 4. Keyboard
34.	Disassemble, identify the internal components and repair/replace the defective parts of a flat bed scanner. (Practical)	11.1 Choose a place and clean the place 11.2 Collect a Flat bed scanner 11.3 Collect the tools 11.4 Unscrew/unlock the flat bed scanner 11.5 Open the cover 11.6 Identify and separate the components 11.7 Find out the faulty parts and replace 11.8 Reassemble and test the flat bed scanner 11.9 Clean the workplace	1.To know Disassemble, identify the internal components and repair/replace the defective parts of a flat bed scanner	1. flat bed scanner.
35.	OPERATION OF HDD AND SSD DRIVES	12.1 Mention the data storage layout of a disk.	To know data storage layout of a disk, hard disk controller	1. Projector. 2. Computer.

		<p>12.2 Describe the operation of a hard disk controller with block diagram.</p> <p>12.3 Describe the operation hard disk drive.</p>	with block diagram, operation hard disk drive	<p>3. Internet.</p> <p>4.Keyboard</p>
36.	OPERATION OF HDD AND SSD DRIVES	<p>12.4 Describe the recording principle in a hard disk.</p> <p>12.5 Describe the operation of a SSD drives.</p> <p>12.6 State the features of a SSD drives.</p>	To know recording principle in a hard disk, operation of a SSD drives, SSD drives	<p>1. Projector.</p> <p>2. Computer.</p> <p>3. Internet.</p> <p>4.Keyboard</p>
37.	OPERATION OF SPECIAL STORAGE DEVICES.	<p>13.1 State the methods of data recording (punch card/paper tape, magnetic tape,magnetic disk and optical) for Micro-Computer systems with example.</p> <p>13.2 State the features of a flash memory as a secondary storage device.</p> <p>13.3 Mention the data storage layout of a disk.</p> <p>13.4 Describe the recording principle in a CD and DVD</p>	To know methods of data recording (punch card/paper tape, magnetic tape,magnetic disk and optical) for Micro-Computer systems, data storage layout of a disk	<p>1. Projector.</p> <p>2. Computer.</p> <p>3. Internet.</p> <p>4.Keyboard</p>
38.	OPERATION OF SPECIAL STORAGE DEVICES.	<p>13.4 Describe the recording principle in a CD and DVD.</p> <p>13.5 Describe the operation of optical disk drive (CD drive) and DVD drives.</p> <p>13.6 State the features of a re-writable optical disk.</p> <p>13.7 Describe the operation of USB devices</p>	To know recording principle in a CD and DVD, optical disk drive (CD drive) and DVD drives	<p>1. Projector.</p> <p>2. Computer.</p> <p>3. Internet.</p> <p>4.Keyboard</p>