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



## Daffodil Polytechnic Institute, Institute Code: 50238

Mark Distribution (for 100 Marks) Theory Marks **Practical Marks** Midterm PC 10 25 Class test 5 PF 25 Quiz test 5 --Final 30 -\_ Total 50 50 -Time Distribution (90min) Particular Time Greeting with students 5 Min **Previous class review** 10 Min Present class lecture 60 Min Feedback 10 Min Attendance 5 Min

### Lesson Plan – Academic session : August2023 – January 2024

Subject Teacher	: Shuva Sarker(Jr. Instructor)
Subject Name	: IT SUPPORT AND IOT BASICS
Subject Code	: 29441
Technology	: Telecommunication
Semester	: 4 <sup>th</sup>
Reference Book	: IT SUPPORT AND IOT BASICS (Publisher: Hoque)
eLearning Course I	.ink:

**Reference book-** Internet of Things: A Hands-On Approach Writer name : Vijay Madisetti, Arshdeep Bahga

# Subject Aims:

To provide a foundation in scientific principles and processes for the understanding and application of technology. It will help our students to make a common base for further studies in technology and science. It also helps to develop the basic knowledge of modern IOT basics.

# Subject Outcome:

## <u>Theory:</u>

- □ Describe Computer organization
- □ State the functions of input and output devices
- Discuss Hardware and Software.
- □ Mention the features of application software packages.
- □ Illustrate IoT and 4IR
- □ Describe Basics of Internet and resources.
- □ Mention the Characteristics of IoT
- □ Describe different types of IoT connections
- □ Discuss Various Platforms for IoT
- □ Define M2M
- □ Describe IoT Hardware and Software
- □ State the Application and Developments of IoT.

### Practical:

- □ Assemble Desktop Computer and Install Software
- □ Install and use Printer, Scanner and Projector with computer
- □ Disassemble and assemble Laptop.
- □ Perform troubleshooting & maintenance of Desktop PC and Laptop
- □ Identify IoT devices
- Control LED Using Arduino IoT cloud and IoT Devices
- □ Perform Home Automation Using IoT Devices

Lecture	Chapter/ Exam /	Learning Area	Learning Outcome	Class/Lab
	Industrial Visit			Supporting
				Equipment's
01	Chapter-01 INTRODUCTION TO COMPUTER	<ul> <li>1.1 Define Computer.</li> <li>1.2 Mention the different type's computer.</li> <li>1.3 Describe the applications of computer.</li> <li>1.4 State the concept of Notebook, PC, Workstation and</li> <li>Client Server Computer.</li> <li>1.5 State hardware, software, and firmware.</li> <li>1.6 State the specification of a PC.</li> </ul>	<ol> <li>Our student can understand application of computer.</li> <li>Students know about work station and note book .</li> <li>Get feedback.</li> </ol>	Internet Projector Slide Ytb link: <u>https://youtu.be/</u> <u>1a_2g_qmfOw</u>

02	Chapter-02	2.1. Define I/O devices.	1. Student know about	Internet
	FUNDAMENTALS	of input devices.	devices .	Projector
	SUPPORT	<ul><li>2.3. Explain different types of output devices.</li><li>2.4. Describe the different types of IT support software.</li></ul>	2.Student identify the identify hardware. 2.Get feedback.	Slide Ytb link: <u>https://youtu.be/</u> <u>So9SR3qpWsM</u>
03	Chapter-02 FUNDAMENTALS OF IT SUPPORT	<ul><li>2.5. Describe the different</li><li>Hardware of a PC.</li><li>2.6. Describe the basic architecture of Computer</li><li>System.</li></ul>	<ol> <li>Our student known as architecture of computer         <ul> <li>2. Our student able to solve radio wave propagation .</li> <li>3. Get feedback.</li> </ul> </li> </ol>	Internet Projector Slide Ytb link: <u>https://youtu.be/</u> <u>So9SR3qpWsM</u>
As	signment-01	Assignment on lecture 01 - 02	Describe the basic architecture of Computer System.	Must be submitted within the next two lecture.

04	Chapter-03 IoT AND 4IR	<ul> <li>3.1. Define IoT and 4IR.</li> <li>3.2. Mention the importance of IR4.0.</li> <li>3.3. Mention the Characteristics of IoT</li> </ul>	<ol> <li>Students able to IOT</li> <li>Get feedback.</li> </ol>	Projector,Internet. slide Link- <u>https://youtu.be/Td</u> <u>1d5iMF3EQ</u>
La	b Report-01	1. ASSEMBLE A DESKTOP COMPUTER	1. To help students learn to address the challenges inherent in directly observing & manipulating the material world & to develop practical skills.	Must be submitted withinthe next two Labclasses.
05	<b>Chapter-03</b> IoT AND 4IR	3.4. State the Three- and Five- Layer Architectures of IoT 3.5. Describe different types of IoT connections 3.6. State the Various Platforms for IoT	*Gather a good knowledge about 5 LAYER ARCHITECHTURE of IOT	Projector,Internet. slide Link: <u>https://youtu.be/6m</u> <u>BO2vqLv38</u>
06	Chapter-03 IoT AND 4IR	<ul> <li>3.6. State the Various Platforms for IoT</li> <li>3.7. Define M2M (Machine to Machine)</li> <li>3.8. Differentiate between IoT and M2M</li> <li>3.9. Mention the technological advancement of 4IR.</li> </ul>	<u>https://yo</u>	L utu.be/6mBO2vqLv38

07	Quiz Test-01 & Class Test-1 (Result will be published within the next two classes)	Chapter 1- 3	*To build up their confidence level in chapter 1,2,3	Projector, Internet.
08	Chapter4 IoT HARDWARE AND SOFTWARE	4.1. List the common IoT Hardware	Students learn about IOT Hardware .	Projector, Internet. slide Link- <u>https://youtu.be/</u> <u>nfL2RBu-1j8</u>
09	Chapter4 loT HARDWA RE AND SOFTWA RE	4.2. Explain different types of IoT Sensors.	Students known as different type of sensor	https://y outu.be/ <u>TtQE3IoI</u> <u>6fU</u>

Assignment-02		Assignment on lecture 03– 04	To build up their confidence level & increase creativity on chapter- 03- 04	Must be submitted within the next two lecture.
10	<b>Chapter4</b> IoT HARDWARE AND SOFTWARE	4.3. Discuss Wearable Electronics	1.Students able to Wearable Electronics	Projector, Internet. slide Link- <u>https://youtu.be/</u> <u>ObDC0hOyMgw</u>
11	<b>Chapter4</b> IoT HARDWARE AND SOFTWARE	4.4. Explain Standard Devices Using IoT.	1. Know about standard Devices	Projector, Internet. slide Link- <u>https://youtu.be/</u> LihmzVL5bm8
Lab Report-02		2INSTALL OPERATING SYSTEM AND DRIVER SOFTWARE IN A PC	1. To help students learn to address the challenges inherent in directly observing & manipulating the material world & to develop practical skills.	Must be submitted within the next two Lab classes.

12	Class Text-02 And Quiz Test-02 (Result will be published within the next two classes)	Chapter 4	*To build up their confidence level in chapter-4	Projector, Internet. And text book
13	Chapter4 IoT HARDWARE AND SOFTWARE	4.5. List the common IoT Software	*to know about IOT software	Projector, Internet. Slide Link: <u>https://youtu.be/</u> <u>h0gWfVCSGQQ</u>
La	ab Report-03	3. INSTALL AND USE PRINTER, SCANNER AND PROJECTOR WITH PC.	1. To help students learn to address the challenges inherent in directly observing & manipulating the material world & to develop practical skills.	Must be submitted within the next two Lab classes.
15	Γ	Model test	Our students will be ready for exam.	Pen, pencil, eraser, calculator

	Mid Term Exam				
16	Chapter-05 APPLICATION AND DEVELOPMENTS OF IOT	5.1. State home automation. 5.2. Mention the necessity of IoT.	* To know about Home automation	Projector, Internet, slide Link- <u>https://youtu.be/</u> <u>-SHjXavvAZQ</u>	
17	Chapter-05 APPLICATION AND DEVELOP MENTS OF IOT	5.3. Describe the IoT Application in Industry. 5.4. State the applications of Surveillance issues.	*to build up their PRACTICAL KNOWLEDGE	Projector, Internet, slide Link- <u>https://youtu.be/</u> <u>b_pebwsmRgw</u>	
18	Class Test-03 And Quiz Test-03 (Result will be published within the next two classes)	Chapter 04 and 05	*To build up their confidence level in chapter-4 and 5	Projector, Internet.	
19	Chapter-05 APPLICATION AND DEVELOPMENTS OF IOT	5.5. List the IoT application in Possible Sector. 5.6. Describe the process of developing applications through IoT tools.	*Student known about developing application through IOT.	Projector, Internet, Slide Link- <u>https://youtu.be/</u> <u>h0gWfVCSGQQ</u>	

Chapter-05 APPLICATION AND DEVELOPMENTS OF IOT	5.7. Describe the present situation of IoT Application in Bangladesh.	* student about situation of IoT Application in Bangladesh	Projector, Internet, Slide Link- <u>https://youtu.be/</u> <u>wP1e16KGvPo</u>
Quiz text-04 Math solving (Result will be published within the next two classes)	Chapter 05	*To build up their confidence level in chapter-05	Projector, Internet, Text book
Chapter-5 APPLICATION AND DEVELOPMENTS OF IOT	<ul> <li>5.1. Collect Hand tools and equipment: Star and flat screw</li> <li>driver, tweezers, Long nose pliers, Cable cutter</li> <li>5.2. Hardware, parts and accessories are collected as per</li> <li>specification by requisition from store/by purchase Hardware, parts and accessories: Motherboard, RAM, processor with Hard Drive, SSD, Casing, connecting cable</li> <li>&amp; wires, expansion cards as per specification.</li> </ul>	*students practical about Hardware assemble .	Projector, Internet, Slide Link- https://youtu.be/ vsG3F9mSV-A
Chapter-1	<ul> <li>10.5 Define viscosity and coefficient of viscosity.</li> <li>10.6 Mention necessity of viscosity.</li> <li>10.7 Solve the problems related with surface tension and viscosity.</li> </ul>	Revises	Projector, Internet, Slide Link- <u>https://www.yout</u> <u>ube.com/watch?v</u> <u>=KGgKL477QsI</u>
	Chapter-05 APPLICATION AND DEVELOPMENTS OF IOT Quiz text-04 Math solving (Result will be published within the next two classes) Chapter-5 APPLICATION AND DEVELOPMENTS OF IOT OF IOT	Chapter-055.7. Describe the present situation of IoT Application in Bangladesh.APPLICATION AND DEVELOPMENTS OF IOTChapter 05Quiz text-04 Math solving (Result will be published within the next two classes)Chapter 05Chapter-5 APPLICATION AND DEVELOPMENTS OF IOT5.1. Collect Hand tools and equipment: Star and flat screw driver, tweezers, Long nose pliers, Cable cutter 5.2. Hardware, parts and accessories are collected as per specification by requisition from store/by purchase Hardware, parts and accessories: Motherboard, RAM, processor with Hard Drive, SSD, Casing, connecting cable & wires, expansion cards as per specification.Chapter-110.5 Define viscosity and co- efficient of viscosity.10.6 Mention necessity of viscosity.10.7 Solve the problems related with surface tension and viscosity	Chapter-05 APPLICATION AND DEVELOPMENTS OF IOT5.7. Describe the present situation of IoT Application in Bangladesh.* student about situation of IoT Application in Bangladesh.Quiz text-04 (Result will be published within the next two classes)Chapter 05* To build up their confidence level in chapter-05Chapter-5 OF IOT5.1. Collect Hand tools and equipment: Star and flat screw driver, tweezers, Long nose piers, Cable cutter 5.2. Hardware, parts and accessories are collected as per specification by requisition from store/by purchase Hardware, parts and accessories: Motherboard, RAM, processor with Hard Drive, SSD, Casing, connecting cable*tevisesChapter-110.5 Define viscosity and co- efficient of viscosity.RevisesChapter-110.5 Solve the problems related with surface tension and viscosityRevises

25	Class test-04	Chapter 4,5	*To build up their	Projector,
	solving (Result		confidence level in	Internet.
	will be published within the next two classes)		chapter-4,5	Text book

26	Chapter-1	<ul> <li>1.1 Define Computer.</li> <li>1.2 Mention the different type's computer.</li> <li>1.3 Describe the applications of computer.</li> <li>1.4 State the concept of Notebook, PC, Workstation and</li> <li>Client Server Computer.</li> <li>1.5 State hardware, software, and firmware.</li> <li>11.1 1.6 State the specification of a PC.</li> </ul>	Revises	Projector, Internet.
27	Chapter-2	<ul> <li>2.1. Illustrate the working principle of radio receiver circuit.</li> <li>2.1 2.2. Explain the working principle of Superheterodyne radio receiver with</li> <li>2.2 circuit diagrams.</li> <li>2.3 2.3. Explain the working principle of super regenerative radio receiver with</li> <li>2.4 circuit diagrams.</li> <li>12.1 2.4. Describe the working principle of FM radio circuit.</li> </ul>	1. Revises	Projector, Internet.
Li	ab Report-04	4. DISASSEMBLE A LAPTOP	1. To help students learn to address the challenges inherent in directly observing & manipulating the material world & to develop practical skills.	Must be submitted within the next two Lab classes.

28	Chapter-3	<ul> <li>3.1 Define Electromagnetic</li> <li>vave and field.</li> <li>3.2 Describe the radiation</li> <li>properties of</li> <li>Electromagnetic waves.</li> <li>3.3 Describe the</li> <li>polarization methods.</li> <li>3.4 Discuss the different</li> <li>types of radio wave</li> <li>propagation.</li> <li>3.5 Mention the application of</li> <li>Radio waves</li> </ul>	Revises	Projector, Internet.
Assignment-03		Assignment on lecture 3-5	To build up their confidence level & increase creativity on chapter- 03-05	Must be submitted within the next two lecture.
29	Chapter-4	4.1. List the common IoT Hardware	Revises	Projector, Internet. Slide Link:

		5.1. Collect Hand tools and				
30	Chapter-5	equipment: Star and flat				
		screw	Revises			
		driver, tweezers, Long nose				
		pliers, Cable cutter				
		5.2. Hardware, parts and		Projector,		
		accessories are collected as		Internet.		
		per				
		specification by requisition				
		from store/by purchase				
		Hardware, parts and				
		accessories: Motherboard,				
		RAM,				
		processor with Hard Drive,				
		SSD, Casing, connecting				
		cable				
		& wires, expansion				
		cards as per				
		specification.				
31	Model test		Our students will be ready	Pen, pencil,		
			for the exam.	eraser, calculator,		
				scale.		
Best wises all my students						
Shuvo Sarker						

Shuvo Sarker Jr. Instructor Daffodil Polytechnic Institute