LESSON PLAN

Department:CSE	Semester:4th	Name of Faculty:
Subject: Microprocessor & Microcontroller (MP&MC)	**No.ofdays/ weekClass allotted:5**	**EffectiveFromDate:**
		No.ofWeek-15
		Topic tobeCovered:

Week	ClassDay	Theory
1st	1st	**UNIT1: MICROPROCESSOR (ARCHITECTUREANDPROGRAMMING-8BIT-8085)**
	2nd	**1.1**IntroductiontoMicroprocessorandMicrocomputer& distinguishbetweenthem.
	3rd	**1.2**ConceptofAddressbus,databus, controlbus&SystemBus
	4th	**1.3**GeneralBusstructureBlockdiagram.
	5th	**1.4**BasicArchitectureof8085(8bit)Microprocessor
2nd	1st	**1.5**SignalDescription(Pindiagram)of8085Microprocessor
	2nd	**1.6**RegisterOrganizations,DistinguishbetweenSPR&GPR,Timing &Control Module.
	3rd	**1.7**Stack,Stack pointer&Stacktop.1.8Interrupts:-8085 Interrupts,Maskingof Interrupt(SIM,RIM)
	4th	**1. DoubtClearing class** **2. Quiz test** **3. Assignment**
	5th	**UNIT2:INSTRUCTIONSETANDASSEMBLY LANGUAGE PROGRAMMING**
3rd	1st	**2.1**Addressingdata&Differentiatebetweenone-byte,two-byte &three-byteinstructionswithexamples.
	2nd	**2.2**Addressingmodesininstructionswithsuitableexamples.
	3rd	**2.3**InstructionSetof8085(DataTransfer,Arithmetic,Logical, Branching,Stack&I/O,MachineControl)
	4th	**2.4**SimpleAssemblyLanguageProgramming of8085
	5th	**2.4.1**SimpleAddition&Subtraction
4th	1st	**2.4.2**LogicOperations(AND,OR,Complement1's&2's)&Masking ofbits
	2nd	**2.4.3**Counters&Timedelay(SingleRegister,RegisterPair,More thanTwo Register)
	3rd	**2.4.4**Looping,Counting&Indexing(Call/JMP etc).
	4th	**2.4.5**Stack&Subroutinesprograms.
	5th	**2.4.6**Codeconversion,BCDArithmetic&16BitdataOperation, BlockTransfer.
5th	1st	**2.4.7**Comparebetweentwonumbers
	2nd	**2.4.8**ArrayHandling(Largestnumber&smallestnumberinthe array)
	3rd	**2.5**Memory&I/O Addressing.
	4th	**1. DoubtClearing class** **2. Quiz test** **3. Assignment**

	5th	**UNIT3:TIMINGDIAGRAMS**
6th	1st	**3.1**Defineopcode,operand,T-State,Fetchcycle,
	2nd	• MachineCycle,Instructioncycle&discusstheconceptof timing diagram.
	3rd	**3.2**Drawtiming diagramformemoryread,memorywrite,I/Oread, I/Owritemachinecycle.
	4th	**3.3**Drawaneat sketchfor thetimingdiagramfor 8085 instruction (MOV,MVI,LDAinstruction).
	5th	**1. DoubtClearing class** **2. Quiz test** **3. Assignment**
7th	1st	**UNIT4:MICROPROCESSORBASEDSYSTEMDEVELOPMENT AIDS**
	2nd	**4.1**Conceptofinterfacing
	3rd	**4.2**DefineMapping&Datatransfermechanisms- Memory mapping&I/OMapping.
	4th	**4.3**ConceptofMemoryInterfacing:-Interfacing EPROM &RAM Memories.
	5th	**4.4**ConceptofAddressdecodingforI/Odevices.
8th	1st	**4.5**ProgrammablePeripheralInterface:8255
	2nd	**4.6**ADC &DAC with Interfacing.
	3rd	**4.7**InterfacingSevenSegment Displays
	4th	**4.8**Generatesquarewavesonalllinesof 8255
	5th	**4.9**DesignInterfaceatrafficlightcontrolsystemusing 8255.
9th	1st	**4.10**Designinterfaceforsteppermotorcontrolusing8255.
	2nd	**1. DoubtClearing class** **2. Quiz test** **3. Assignment**
	3rd	**UNIT5:MICROPROCESSOR (ARCHITECTUREANDPROGRAMMING-16BIT-8086)**
	4th	**5.1**RegisterOrganisationof 8086
	5th	**5.2**Internalarchitectureof8086
10th	1st	**5.3**SignalDescriptionof8086
	2nd	**5.4**GeneralBusOperation&PhysicalMemoryOrganisation
	3rd	**5.5**MinimumMode&Timings,
	4th	**5.6**MaximumMode&Timings,
	5th	**5.7**InterruptsandInterruptServiceRoutines,Interrupt Cycle,
11th	1st	• Non-MaskableInterrupt,MaskableInterrupt
	2nd	**5.8**8086InstructionSet&Programming:AddressingModes,
	3rd	• InstructionSet,AssemblerDirectivesandOperators
	4th	**5.9**SimpleAssemblylanguageprogramming using 8086 instructions.
	5th	**1. DoubtClearing class** **2. Quiz test** **3. Assignment**
12th	1st	**UNIT6: MICROCONTROLLER (ARCHITECTUREANDPROGRAMMING-8 BIT)**
	2nd	**6.1**DistinguishbetweenMicroprocessor&Microcontroller
	3rd	**6.2** 8 bit&16bitmicrocontroller
	4th	**6.3**CISC&RISC processor

	5th	**6.4**Architectureof8051Microcontroller
13th	**1st**	**6.5**SignalDescriptionof8051Microcontrollers
	2nd	**6.6**MemoryOrganisation-RAMstructure,SFR
	3rd	**6.7**Registers,timers,interruptsof 8051Microcontrollers
	4th	**6.8**AddressingModesof8051
	5th	**6.9**Simple8051AssemblyLanguageProgrammingArithmetic& LogicInstructions
14th	**1st**	• JUMP,LOOP,CALLInstructions,I/OPortProgramming
	2nd	**6.10**Interrupts,Timer&Counters
	3rd	**6.11**SerialCommunication
	4th	**6.12**MicrocontrollerInterruptsandInterfacingto 8255
	5th	**1. DoubtClearing class** **2. Quiz test** **3. Assignment**
15th	**1st**	**Revision**
	2nd	**Revision**
	3rd	**Revision**
	4th	**PreviousYearQuestionDiscussions**
	5th	**PreviousYearQuestionDiscussions**

ASIAN SCHOOL OF TECHNOLOGY,
KHORDHA

Signature of Faculty