**Lesson Plan: MIP**

**Faculty name : Neeraj Kumar**

**Semester -4th**

**Subject : Microprocessor and Peripheral Devices**

**Work load 4 Lecture 3 Practical**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WEEK****NO.** | **THEORY****DAY** | **TOPICS COVERED** | **PRACTIC****AL DAY** | **PRACTICAL DONE** |  |
| **1** | 1 | Introduction of microprocessor |  |  |  |
|  | 2 | Functions of its blocks | 1st | Introduction to microprocesor kit. |  |
|  | 3 | Function and impact on modern society and its uses |  |
|  | 4 | Microprocessors and Computers applications |  |  |  |
| **2** | 1 | Introduction of Architecture of a microcessor |  | Familiazation of different key of 8085 Microproceddor kit and its memory map |  |
|  | 2 | Conecpt of bus bus organization of 8085, | 1st |
|  | 3 | Functional block diagram of 8085 |  |
|  | 4 | Revision and Class -test |  |
| **3** | 1 | Function of each block pin details of 8085 and |  |
|  | 2 | Step to execute a stored programme | 1st | Steps to enter modify data/program and |  |
|  | 3 | Demultiplexing of Address/data |  | to execute a programme on 8085 kit |  |
|  | 4 | Revision and Class -test |  |  |  |
| **4** | 1 | Instruction timing and cycles |  |  |  |
|  | 2 | Machine cycle and t-states | 1st | Writing and execution of ALP for Addition and station of two 8 bit numbers |  |
|  | 3 | Fetch and execute cycle |  |  |  |
|  | 4 | Revision and Class test |  |  |  |
| **5** | 1 | Introduction to programming |  | Writing and execution of ALP for multiplication and division of two 8 bit |  |
|  | 2 | Brief idea of machine and assembly languges, | 1st |
|  | 3 | Machine and mnmonic codes. |  |
|  | 4 | Revision and Class -test |  |  |  |
| **6** | 1 | Instrction format and Addresing mode. |  | Writing and execution of ALP for |  |
|  | 2 | Identification of instructions | 1st |
|  | 3 | Conecpt of instruction set |  | arranging 10number in |  |
|  | 4 | Revision and Class -test |  |  |  |
| **7** | 1 | Data transfer group ,Arithmetic Group ,logic Group |  | ascending /descending order |  |
|  | 2 | Stack O/I and Machine control group Progtamming exercise in assembly languge. |  |
|  | 3 |  |  |  |
|  | 4 | Revision and Class -test |  |  |  |
| **8** | 1 | Introduction of Memories and I/Ointerfacing |  | Writing and execution of ALP for 0to 9 BCD |  |
|  | 2 | Concept of memory mapping | 1st |  |  |
|  | 3 | Partitioning of total memory space Revision and Class -test |  |
|  | 4 |  |  |  |
| **9** | 1 | Address decoding conecpt of peripheral mapped I/O |  |  |  |
|  | 2 | Interfacing of memory mapped I/O devies | 1st | Interfacing exercise on 8255 like LED Display control |  |
|  | 3 | Conecpt of interrupt |  |  |  |
|  | 4 | Revision and Class -test |  |  |  |
| **10** | 1 | Introduction of Interrupts |  |  |  |
|  | 2 | Maskable and non maskable Edge triggered triggered interrupts. | 1st |  |  |
|  | 3 | Software interrupt ,restart interrupts and its use |  |  |  |
|  | 4 | Revision and Class -test |  |  |  |
| **11** | 1 | Various Hardware interrupts of 8085 |  |  |  |
|  | 2 | Servicing interrupts extending interrupt system |  |  |  |
|  | 3 | Software interrupt |  |  |  |
|  | 4 | class test |  |  |  |
| **12** | 1 | Introduction to data transfer techniques |  |  |  |
|  | 2 | Concept of programmed I/O Operations |  |  |  |
|  | 3 | Sync data transfer, async data transfer (hand shaking) |  |  |  |
|  | 4 | Revision and Class -test |  |  |  |
| **13** | 1 | Interrupt driven data transfer DMA | 1st | Interfacing exercise on 8253 |  |
|  | 2 | Serial output data Serial input data |  | Programmable interval timer |  |
|  | 3 | Peripheral devices |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 4 | Revision and Class -test |  |  |
| **14** | 1 | Introduction of peripheral deices |  | Interfacing exercise on 8279 programmable |
|  | 2 | 8255PPI and 8253PIT 8257 | 1st | KB/display interface like to display the code |
|  | 3 | DMA controller |  |  |
|  | 4 | Revision and Class -test |  |  |
| **15** | 1 | 8279 programmable KG/Display |  |  |
|  | 2 | Interface 8251 communication interface adapter | 1st | Use of 8085 emulator for hardware testing |
|  | 3 | interfaceses in detail |  |  |
| 4 | Revision and Class -test |  |