B.Sc. Fifth Semester Winter 2022

Optional Paper-II: Electronics: Introduction to Microprocessors (New Course)

P. Pages: 2 SPM/KW/22/1185A Time: Three Hours Max. Marks: 50 Notes: 1. All the questions are compulsory and carry equal marks. 2. Draw neat & labelled diagram wherever necessary. Either: 1. 6+4 Explain the Internal registers organization of microprocessor 8085. Also give a brief explanation of various flags & program status word. OR Give a brief overview of pin diagram of microprocessor 8085 & explain each set of them 10 in brief. Either: 2. 10 Explain in brief the various addressing modes of microprocessor 8085. Elaborate various formats of instruction used in µP 8085 OR Explain any five arithmetic & logic group instruction with example. Either: 3. Explain the need of subroutines in programming of μP 8085. 10 Also give brief introduction of subroutine calls. OR Explain the memory mapped I/O and I/O mapped I/O in interfacing.

Either:

Explain the priority structure of 8085 interrupts. 4. Explain the synchronous & Asynchronous modes of data transfer.

5+5

OR

Draw the block diagram of 8255 PPI and explain each in brief.

10

Attempt any ten.

5.

- a) State the number of address lines used in 8085 microprocessor.
- b) How many general purpose registers are there in microprocessor 8085.
- e) State the important function of Address latch enable.
- d) State two data transfer instruction used in 8085.
- e) State any two branch control group instruction.
- f) State the register involved by default in Arithmetic & logic group instructions.
- g) Explain POP B instruction.
- h) What is stack?
- i) Explain the impact of "IN" instruction after execution of the same.
- j) What is priority of INTR interrupt?
- k) What is DMA?
- l) Which is the fastest mode of data transfer in 8085?
