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DMI-ST. EUGENE UNIVERSITY
DEGREE EXAMINATION – DECEMBER – 2022

SEM: II **351HE15 MICROPROCESSOR AND ITS APPLICATION**

Time: 3 Hours

Max. Marks: 100

Answer any Five questions (5 x 20 = 100 Marks)

1. a) Distinguish Microprocessor and Microcontroller with 6 points.(6 Marks)
b) Describe flag registers of 8085 microprocessor. (8 Marks)
c) Draw an 8085-microprocessor pin diagram. (6 Marks)
2. a) Each Instruction Format of 8085 and Data Format of 8085 microprocessor has specific information fields. These information fields of instructions are called elements of instruction. Justify the statement by explaining on the fields. (8 Marks)
b) Explain the following addressing modes with examples. Immediate addressing mode, Implied addressing mode, Direct addressing mode. (12 Marks)
3. a) Give a detailed explanation on absolute decoding. Draw a circuit diagram and show the memory map. (8 Marks)
b) Compare memory mapped I/O with I/O mapped I/O with 6 points. (6 Marks)
c) State the 8085 pins used for interfacing with other devices. Draw a block diagram of memory and I/O interfacing. (6 Marks)
4. a) Describe the functional block diagram of 8253 (programmable counter).(12 Marks)
b) Elaborate on the operational modes of 8279 microprocessor. (8 Marks)
5. a) Give a detailed explanation of flags of 8086 microprocessor. (8 Marks)
b) Describe the bus interface of 8086 microprocessor. (12 Marks)
6. a) Illustrate bus organization in 8085. (10 Marks)
b) ALE signal is used to demultiplex the lower order address bus (AD0 – AD7). Explain with the help of a diagram how demultiplexing is done. (10 Marks)
7. a) Illustrate the following instruction sets with 3 examples of each.
 - i. Data Transfer Instruction
 - ii. Arithmetic Instructions
 - iii. Logical Instruction (12 Marks)
b) Illustrate instruction formats with appropriate examples. (8 Marks)