

QP CODE	2023511584
---------	------------

Reg.No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

DMI-ST. EUGENE UNIVERSITY
DEGREE EXAMINATION – JANUARY 2023

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

Time: 3 Hours

Max. Marks: 100

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

1. a) Explain the steps needed to execute an instruction. (8 Marks)
b) Describe memory read machine cycle. sketch a timing diagram. (12 Marks)
2. a) Elaborate on software interrupts. (10 Marks)
b) RIM and SIM instruction are used for interrupts of Microprocessor 8085. Explain with the help of diagram. (6 Marks)
c) Draw the hardware structure of the interrupts of 8085. (4 Marks)
3. a) Discuss Asynchronous and synchronous data transfer scheme with transmission format diagrams. (6 Marks)
b) Explain the functional block diagram of 8251 and interfacing with microprocessor. (4 Marks)
c) State the 8085 pins used for interfacing with other devices. Draw a block diagram of memory and I/O interfacing. (10 Marks)
4. a) Describe the 8257 DMA controller pin diagram. (12 Marks)
b) Write the sequence of operations performed by a 8257 DMA controller. (8 Marks)
5. a) Describe the pin diagram of 8086 microprocessor. (15 Marks)
b) Discuss reserved memory locations in 8086 microprocessors. (5 Marks)
6. a) Illustrate Interrupt Driven I/O Data Transfer with a diagram. (10 Marks)
b) Describe the working principles of daisy chaining in interrupt driven data transfer. (10 Marks)
7. a) Describe how ADC can be interfaced with 8085 microprocessors. Draw a well labeled diagram. (12 Marks)
b) Discuss Interfacing ADC 0809 8-bit successive approximation type ADC with 8086 Microprocessor. (8 Marks)