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

SEM: IV 351CS42 MICROPROCESSOR AND ITS APPLICATION

Time: 3 Hours

Max. Marks: 100

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

1. a) What are registers? (2 Marks)
b) Write a short account on the two methods of data transfer. (4 Marks)
c) Explicate in brief about instruction timing and status flag. (4 Marks)
d) Neatly draw and label an 8bit 8085A microprocessor, and explain the following given two of its internal architecture components; Arithmetic Logic Unit, Timing and Control Unit. (10Marks)
2. a) Briefly explain about microcontroller? (5 Marks)
b) Enlist any four types of addressing modes. (5 Marks)
c) Explicate on interrupt in detail, and the five interrupts provided in the 8051 microprocessors. (10 Marks)
3. a) What are peripheral IO instructions? (5 Marks)
b) Briefly explain the different types of data transfer. (5 Marks)
c) Explain briefly about any two addressing modes groups an 8086 microprocessor. (10 Marks)
4. a) Elucidate on the operations of DMA with the aid of a neat block diagram. (10 Marks)
b) The Keyboard and display controller (8279) has four major sections, explain:
 - i. The keyboard sections
 - ii. The display sections
 - iii. The scan section (10 Marks)
5. a) Write a few lines on the Digital Signal Processing. (5 Marks)
b) Briefly explain on any two types of temperature sensors. (5 Marks)

c) Enumerate on Analogue interfacing and Industrial Control. (10 Marks)

6. a) How do you create a simple program? Explain in detail about the general steps involved in writing a simple program. (10 Marks)

b) Explicate on timer modes in a very detailed manner. (10 Marks)

7. a) List the two methods used to interface I/O devices. (2 Marks)

b) List any four interrupt signals that an 8085 microprocessor uses to interrupt a program execution. (4 Marks)

c) Give a brief account on memory mapped I/O. (4 Marks)

d) Explain in detail about the pin configuration of an 8085A microprocessor, with the aid of a neat diagram. (10 Marks)