

DIVISION OF COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF ENGINEERING
B.TECH DEGREE FIRST INTERNAL EXAMINATION, OCTOBER 2023
Semester V Course Title: 19-202-0505 ADVANCED MICROPROCESSOR AND
MICROCONTROLLERS

Faculty: Mrs. Fameela K A

Max. Marks: 50

Time: 2Hrs

CO1: Familiarize 32 bit, 64 bit and multi core architectures

CO2: Compare the features of various microprocessors

(4 x 5 = 20)

Part A (Answer All Questions)

N o		C O	PO	BL	Marks
I.	a. Compare and Contrast 80386 and 80486.	2	1,2,3, 4,6,7,9	4	5
	b. "Paging can be switched off by certain register settings." Justify the statement? Also explain the control registers?	1	1,2,3,9	3	5
	c. Explain different operating modes of 80386?	1	1,2,3,9	2	5
	d. What are segment descriptors. Explain the various bits in a segment descriptor?	1	1,2,3,9	2	5

Part B (Answer All Questions)

(3x10 = 30)

II.	How replication of the entire processor pipelines or parts of it achieves the performance of a system? Explain the concept of superscalar architecture with a neat diagram?	1	1,2,3,9	3	10
III.	Explain how virtual address is converted to linear address in 80386?	1	1,2,3,9	2	10
IV.	Draw and describe the internal Architecture of 80386 microprocessor. Explain each of the functional units in detail.	1	1,2,3,9	2	10