

FINAL EXAMINATION

MICROPROCESSOR AND MICROCOMPUTERS

INSTRUCTION TO STUDENTS: ATTEMPT ALL QUESTIONS. TIME: 3 HOURS

Question 1. Discuss what you understand by the following terms: (10 Marks)

- a. Micro-processor
- b. Bus interface unit (BIU)
- c. Execute Unit (EU)
- d. Computer Peripherals
- e. Interrupt Sequence

Question 2. Explain five functions of bus interface unit (10 Marks)

Question 3. What are the advantages of memory segmentation? (10 Marks)

Question 4. What are some of the modes for control transfer instruction? (10 Marks)

Question 5. Assembler directives are the directions to the assembler which indicate how an operand or section of the program is to be processed. Discuss. (20 Marks)

Question 6. What do you understand by the Universal Synchronous Asynchronous Receiver Transmitter, USART? (10 Marks)

Question 7. State and briefly explain any FIVE General purpose programmable peripheral devices (10 Marks)

Question 8. State and briefly explain Interrupts and interrupts service routines (10 Marks)

Question 9. What do you understand by Direct Memory Access (DMA)? (5 Marks)

Question 10. Name any machine language instruction format and briefly show how the addressing modes of the 8086 work (5 Marks)