## 2203E1300

Candidate's Seat No :\_\_\_\_\_

## **B.Sc. Semester-5 Examination**

ELE-302 - Electronics (Digital Electronics and MP)

Instructions: (1) All questions carry equal marks. (3) Symbols used have their meaning as usual  1 (a) Draw a circuit of 2 x mod 5, mod 10 counter and explain its working. (b) Write notes on decoding gates.  7  1 (a) Draw a circuit of 2 x mod 5, mod 10 counter and explain its working. (b) Explain Moore and Mealy models giving their state transition diagram of sequence detector. (c) Explain Moore and Mealy models giving their state transition diagram of sequence detector. (d) Draw a signal diagram of IC 8085 and explain all 6 groups in detail. (e) Draw the timing diagram of MVI A, 61H instruction.  7  8  2 (a) Explain about "Generating control signals". (b) Draw FLAG register and brief about each flag. (e) Draw FLAG register and brief about each flag. (f) Draw FLAG register and brief about each flag. (g) Explain about Data transfer, Branch and Arithmetic instruction in detail. (g) Give comparison between memory mapped I/O and peripheral mapped I/O techniques of addressing.  8  1 (a) Draw the timing diagram of "N" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instruction and explain in detail. (g) Draw the timing diagram of "OUT" instructio	Time: 2-30 Hours]		0 Hours]	March-2024 [Max. Marks :	[Max. Marks: 70	
(3) Symbols used have their meaning as usual  1 (a) Draw a circuit of 2 x mod 5, mod 10 counter and explain its working.  7 (b) Write notes on decoding gates.  7 OR  1 (a) Draw a circuit of 2 x mode 3, mod 6 counter and explain its working.  (b) Explain Moore and Mealy models giving their state transition diagram of sequence detector.  7 (b) Explain Moore and Mealy models giving their state transition diagram of sequence detector.  7 (b) Draw a signal diagram of IC 8085 and explain all 6 groups in detail.  7 (b) Draw the timing diagram of MVI A, 61H instruction.  7 OR  2 (a) Explain about 'Generating control signals'.  (b) Draw FLAG register and brief about each flag.  7 (b) Draw FLAG register and brief about each flag.  7 (b) Draw FLAG register and brief about each flag.  8 (a) Explain about Data transfer, Branch and Arithmetic instruction in detail.  7 (b) Give comparison between memory mapped I/O and peripheral mapped I/O techniques of addressing.  OR  3 (a) Draw the timing diagram of "IN" instruction and explain in detail.  7 (b) Draw the timing diagram of "OUT" instruction and explain in detail.  7 (b) Draw the timing diagram of "OUT" instruction and explain in detail.  7 (b) Draw the timing diagram of "OUT" instruction and explain in detail.  7 (b) Accumulator data AA H & CY=O. Illustrate accumulator content after execution of instruction RRC twice.  OR  4 (a) A set of 3 reading is stored in the memory location starting at BO65 H. Arrange them in a seconding order.  Data 95, 53, 41.  (b) Accumulator data AAH & CY=O. Illustrate accumulator content after execution of instruction RAR twice.  5 Attempt any seven out of 12:  (1) How many Flipflop are required to constructed mod-256 and mod 1024 counter?  (2) Define Glitch.  (3) How does a parallel counter differ from a serial counter?  (4) The 8085 microprocessor use bit data bus & bit address bus.  (5) Which two instruction can make content of register A zero?  (6) State the difference between MOV and MVI instruction.  (7) Give the full form o		Instruct	ions : (1)			
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		` /				
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