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324552(24)

B. E. (Fifth Semester) Examination, April-May 2021

(New Scheme)

(Elect. Engg. Branch)

MICROPROCESSOR & INTERFACING

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : *Answer all questions. Part (a) from each unit is compulsory. Attempt any* ***two*** *parts from part (a), (b), (c) and (d) of each 7 marks.*

Unit-I

1. (a) What are special purpose registers? Give their names. 2

(b) Explain memory stack organization of 8085 Mirco-processor. 7

(c) Draw the functional block diagram of 8085 Micro-processor. 7

(d) How do you compute the number of machine cycles in and operation? Explain. 7

Unit-II

2. (a) Explain the instruction XC HG 2

(b) How many addressing modes does microprocessor 8085 consists? Explain each with an example. 7

(c) Draw timing diagram of instruction LDA 20 BC_4 and explain. 7

(d) Discuss all the instructions related to stack and sub-routine. 7

Unit-III

3. (a) Define format of data transfer. 2

(b) What are the different types of memories? What are the difference between static and dynamics RAM? 7

(c) Explain various modes of data transfer. 7

(d) Interface 2 K bytes of memory to 8085 micro-processor with starting address 8000 H. Use decoder JC. 7

Unit-IV

4. (a) What are the interrupt in 8085 μP and how will it be classified? 2

(b) Define pending interrupts and explain all the instruction related to interrupt processing. 7

(c) What is interrupt logic control instruction? Explain all interrupt logic control instruction. 7

(d) How does microprocessor handle multiple interrupts? Explain. 7

Unit-V

5. (a) Define DMA. 2

(b) Draw the pin diagram of chip 8255 and hence. Explain in detail. 7

(c) Draw pin diagram and architecture of 8251 (USART) and discuss its components. 7

(d) How does 8253 timer operate in different modes? Explain. 7