Reg. No. :

Question Paper Code: 55501

B.E./B.Tech. DEGREE EXAMINATION, DEC 2020

Fifth Semester

Electronics and Instrumentation Engineering

15UEI501 - MICROPROCESSOR AND MICROCONTROLLER INTERFACING

(Regulation 2015)

Duration: 1.15 hrs   Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. Which one the following is not a vectored interrupt?   CO1- R

    (a) TRAP   (b) RST 6.5

    (c) RST 7.5   (d) INTR

2. Which is not the control bus signal   CO1- R

    (a) Read   (b) Write   (c) Reset   (d) none of these

3. The size of each segment in 8086 is   CO2- U

    (a) 64 k   (b) 24 k   (c) 50 k   (d) 16 k

4. Stack words on   CO2- U

    (a) LILO   (b) LIFO   (c) FIFO   (d) none of these

5. Which of the following is not a mode of data transmission 8251?   CO3- R

    (a) Simplex   (b) Duplex

    (c) Semi duplex   (d) None of these

6. The pin that clears the control word register of 8255 when enabled is   CO3- R

    (a) CLEAR   (b) SET   (c) RESET   (d) CLK

7. The internal RAM memory of the 8051 is   CO4- R

    (a) 32 bytes   (b) 64 bytes   (c) 128 bytes   (d) 256 bytes

8. How many bytes of bit addressable memory is present in 8051 based micro controllers?   CO4- R

   (a) 8 bytes   (b) 32 bytes   (c) 16 bytes   (d) 128 bytes

9. Which of the following instructions will move the contents of the accumulator to register 6?   CO5- R

   (a) MOV 6R, A   (b) MOV R6, A   (c) MOV A, 6R   (d) MOV A, R6

10. The internal schematic of a typical stepper motor has   CO5- R

   (a) 1 winding   (b) 2 winding   (c) 3 winding   (d) 4 winding

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Describe the functional block diagram of 8085.   CO1-U   (8)

12. Draw and explain the timing diagram of 8085 machine cycles.   CO2 -U   (8)

13. With neat diagram explain about 8251?   CO3- U   (8)

14. With a necessary diagram explain about the architecture of 8051   CO4- U   (8)

15. Draw the diagram to interface a stepper motor with 8051   CO5- Ana   (8)
    microcontroller and explain. Write its ALP to run the stepper motor in
    both forward and reverse direction with delay.

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