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Question Paper Code: 55501

B.E./B.Tech. DEGREE EXAMINATION, AUGUST 2021

Fifth Semester

Electronics and Instrumentation Engineering

15UEI501 - MICROPROCESSOR AND MICROCONTROLLER INTERFACING

(Regulation 2015)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

(Answer any ten of the following questions)

1. List different instruction formats. CO1- U
2. List the features of RISC architecture. CO2- R
3. Define the terms A/D & D/A convertor. CO3- R
4. Write the instruction format for 8051 microcontroller. CO4- U
5. What are the different types of Jump instructions available in 8051? CO5- R
6. What is the function of program counter in 8085 microprocessor? CO1- U
7. Explain RISC architecture. CO2- R
8. What are the basic modes of operations of 8255? CO3- R
9. Write the instruction format for 8051 microcontroller. CO4- U
10. What are the control signals from 8051 microcontroller required for washing machine control? CO5- R
11. Mention the purpose of SID and SOD lines. CO1- U
12. Define stack and stack related instructions CO2- R
13. What are the features used mode 2 in 8255? CO3- R
14. Write the instruction format for 8051 microcontroller. CO4- U
15. List out difference between MOV and MOVX instructions. CO5- R

PART – B (3 x 10= 30 Marks)

(Answer any three of the following questions)

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| 16. Describe the functional block diagram of 8085. | CO1-U | (10) |
| 17 Draw and explain the timing diagram of 8085 machine cycles. | CO2 -U | (10) |
| 18. With neat diagram explain about 8251? | CO3- U | (10) |
| 19. With a necessary diagram explain about the architecture of 8051 | CO4- U | (10) |
| 20. Draw the diagram to interface a stepper motor with 8051 microcontroller and explain. Write its ALP to run the stepper motor in both forward and reverse direction with delay. | CO5- Ana | (10) |

