Reg. No. : | | | | | | | | | |

Question Paper Code: 35502

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

Fifth Semester

Electronics and Instrumentation Engineering

01UEI502 – MICROPROCESSOR AND INTERFACING

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Differentiate program counter and stack pointer.

2. What is the function of the accumulator.

3. Write the functions of an assembler.

4. What is the function of IO/M signal in the 8085.

5. List the main features of 8259*A* interrupt controller.

6. Compare serial data transfer and parallel data transfer 7. What is BHE.

8. Define pipelining?

9. Point out the salient features interrupt structure of an 8086 microprocessor.

10. Mention any four flag manipulation instructions.

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Explain the operation of the following 8085 signals: Ready, S1 and S0, HOLD and HLDA and ALE. (8)

    (ii) Draw the structure of the flag register and explain each flag with an example. (8)

Or

(b) Discuss the execution of OUT instruction in 8085 processor and also draw the timing diagram. (16)

12. (a) Explain the direct addressing modes and indirect addressing modes of 8085 with example. (16)

Or

(b) Point out the instructions required for using stack in 8085 processor. Also explain its functions. (16)

13. (a) Relate the detailed concept of interfacing A/D converter with 8085 processor. (16)

Or

(b) With a neat block diagram, explain in detail the internal architecture of 8255 and its registers. (16)

14. (a) Classify the various addressing modes of 8086 microprocessor. (16)

Or

(b) (i) Explain the interrupt structure of the 8086 in detail. (10)

(ii) Compare minimum and maximum mode operation of the 8086. (6)

15. (a) Develop a program to add two 8 bit data (*F0H* and *50H*) in 8086 processor and store the result in the memory, when MASM assembler is used. (16)

Or

(b) Draw the structure of 8086 flag register and explain the function of the flags with examples. (16)

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