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

Question Paper Code: 1065170

B.E. / B.Tech. DEGREE EXAMINATIONS, NOV / DEC 2024
Fifth Semester
Electronics and Communication Engineering
U20EC503 – PROCESSOR AND CONTROLLERS
(Regulation 2020)

Time: Three Hours | Maximum: 100 Marks

Answer ALL questions

PART – A (10 x 2 = 20 Marks)

1. What is microprocessor?

2. How many memory locations can be addressed by a microprocessor with 14 address lines?

3. How is the stack top address calculated?

4. Compare Procedures with Macros.

5. List the functions performed by 8279.

6. What is I/O mapped I/O?

7. State the two power saving mode of operation in 8051.

8. Compare Microprocessor and Microcontroller.

9. What is a coprocessor ?

10. State the features of Closely Coupled Multiprocessor System.

PART – B (5 x 16 = 80 Marks)

11. (a) With neat PIN diagram, explain the various pins and signals of 8085 microprocessor. (16)

(OR)

(b) i) Explain briefly about timing diagram of 8085microprocessor. (8)
ii) Explain the features of 8085 in detail. (8)

12. (a) Explain the architecture of 8086 with a neat diagram. (16)

(OR)

(b) i) Explain 8086 Interrupts in detail. (8)
ii) Write an 8086 Assembly Program to Convert BCD Number into Binary Format. (8)

13. (a) i) Describe the Features of 8253 and explain various modes of operation in 8253 programmable internal timer. (8)
ii) Explain in detail the operation of 8255. (8)

(OR)

(b) Draw the pin diagram of 8257 programmable DMA controller and explain the function of each pin in detail. (16)

14. (a) Describe the architecture of 8051 with neat diagram and evaluate program power mode performance. (16)

(OR)

(b) i) Explain the Register indirect addressing mode and Indexed addressing mode of 8051. (8)
ii)Write an ALP for 8051 to receive bytes of data serially, and put them in P2, with the baud rate at 9600, 8-bit data, and 1 stop bit: (8)

15. (a) Explain the block diagram of 8087 Numeric Data Processor. (16)

(OR)

(b) What is meant by Loosely Coupled configuration? Explain any one high end processors? (16)

---------xxxx---------