

QP CODE: 24026945



Reg No :
Name :

**B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE
EXAMINATIONS, OCTOBER 2024**

Third Semester

B.Sc Electronics and Computer Maintenance Model III

**Core Course - EM3CRT02 - MICROPROCESSOR ARCHITECTURE, PROGRAMMING
AND APPLICATIONS**

2017 Admission Onwards

6DD5AD68

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. State the function of HOLD and HLDA pins in 8085.
2. What is the role of instruction register?
3. What is the use of SDK-85 memory system?
4. Describe the operation of ĨN”instruction.
5. State the function of LHLD and ADC instruction.
6. What is the use of CMP and CPI instruction?
7. What is RAR instruction in 8085?
8. How the time delay of pulse waveform is calculated?
9. What is program status word?
10. Which instruction is used to call subroutine if carry flag is set?
11. What are the uses of SIM instruction?
12. What is serial I/O?

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*





13. Draw the timing of memory write cycle and explain.
14. Explain the function of IN and OUT instructions.
15. Draw a flowchart of conditional loop illustrating indexing and counting.
16. Explain the functions of 16 bit data transfer instructions LXI and arithmetic instruction INX and DCX.
17. Differentiate the two compare instructions of 8085.
18. What are the applications of counter? Write the instruction to load BC register pair with 2384H and set a loop for time delay.
19. Illustrate the flowchart of hexadecimal counter.
20. What is nesting and multiple ending subroutine?
21. Explain features of the programmable interrupt controller ,8249A.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Explain about the I/O interfacing in 8085.
23. Explain dynamic debugging and tools for dynamic debugging.
24. Illustrate the program and flowchart for modulo ten counter. Assume the clock frequency is 1 MHz.
25. What are interrupts? What are the different interrupt types in 8085?

(2×15=30)

