

Please check whether you have got the right question paper.

- N.B:
1. All question are compulsory.
  2. Figures to the right indicate full marks.

- Q.1 Attempt **any three** of the following: 15
- a. Explain the role of 8085 system bus is communication of MPU with peripherals.
  - b. Differentiate between personal computer, workstation, single-board and single-chip microcomputers.
  - c. Explain architecture of 8085 Microprocessor.
  - d. Write a short note on 1. Opcode fetch cycle 2.I/O devices
  - e. What is a microprocessor? What is the difference between a microprocessor and CPU.
  - f. Draw and explain pin diagram of 8085.
- Q.2 Attempt **any three** of the following: 15
- a. Write a difference between a Memory-Mapped I/O and Peripheral I/O?
  - b. Explain de multiplexing of address/ data bus of 8085
  - c. Explain 8085 programming model.
  - d. Explain Logic operations with examples.
  - e. Explain Data transfer operation with Example
  - f. Explain Arithmetic operations with examples.
- Q.3 Attempt **any three** of the following: 15
- a. Give details 1. MOV DPTR, # 3000H 2. SUB D.
  - b. Write the steps for debugging counter and Timer delay programs.
  - c. Explain the concept of Stack, subroutines, Return, Restart and conditional Call
  - d. Explain dynamic debugging in details.
  - e. Write a Program for Modulo ten counter
  - f. Explain Looping, Counting And Indexing.
- Q.4 Attempt **any three** of the following: 15
- a. Explain BCD –to –binary conversion with examples.
  - b. Write note on interrupts of 8085
  - c. Explain following instructions with details
    1. STA D000H, 16-bit immediate data 2. MOV A, C
  - d. Explain the concept of Operating System.
  - e. Write a program for binary to unpacked BCD conversion
  - f. Write a short note on Direct Memory Access (DMA).
- Q.5 Attempt **any three** of the following: 15
- a. Explain Pentium Processors and its architectures?
  - b. Explain architecture of Pentium IV.
  - c. Draw the block diagram and architecture of ULTRA SPARC
  - d. What do you mean by Hyper-Threading in microprocessors?
  - e. Enlist various microprocessor names and its core types.
  - f. Explain SPARC architecture.

\*\*\*\*\*