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# B. Sc. (Part - II) Examination, 2022 (Old/New Course) COMPUTER SCIENCE Paper First (Computer Hardware)

Time : Three Hours] [Maximum Marks:50

Note: Attempt any two parts from each unit. All questions carry equal marks.

### Unit - I

- 1. (a) What is computer network? Explain parallel processing in brief.
  - (b) Explain memory addressing capability of CPU.
  - (c) Write notes on:

[2]

- (i) Single chip microcomputer
- (ii) Multiprogramming system

### Unit - II

- 2. (a) Describe execution cycle, fetch cycle and instruction cycle in detail.
  - (b) Explain various addressing modes in 8085.
  - (c) Write notes on:
    - (i) CPU organization
    - (ii) Interrupts

### Unit - III

- 3. (a) Describe in detail semiconductor memory.
  - (b) What is MMU? How does it work?
  - (c) Explain the working of real and virtual memory.

### Unit - IV

- 4. (a) Describe serial data I/O and its methods.
  - (b) Explain with diagram printers and plotter.
  - (c) Discuss in detail microcontroller.

## Unit - V

- 5. (a) Define and explain multiprogramming, multiprocessing and multitasking operating system.
  - (b) Write notes on:
    - (i) Program design
    - (ii) Application package
  - (c) Explain ML, AL, and HLL. Write advantages and disadvantages of all.