# Half Yearly Examination 2020-21

# **B.Sc.** 1<sup>st</sup> Year (Computer Science)

## Hardware

Paper First

Max.M.=50

**Note:-** Attempt any two questions in each section . Each question has equal marks.

#### **Section I**

- a) What are the major components of digital computer? Explain with the help of diagram.
- b) What are the memory addressing capability of CPU and word length and processing speed of computer?
- c) Define the following with suitable example (any two):
  - i) Hardware ii) Flynn's classification iii) Analog computer

#### **Section II**

- a) Draw and explain the timing diagram for memory read cycle for INTEL 8085
- b) What do you mean by addressing mode? Explain any four addressing modes.
- c) Draw and explain the structure of CPU organization.

#### **Section III**

- a) What do you mean by cache memory? Explain utility of virtual memory.
- b) What do you understand by MMU? Explain its working in brief.
- c) Explain the following terms (any two):
  - i) DASD ii) Primary memory iii) Secondary memory

## **Section IV**

- a) Difference between microcontroller and microprocessor?
- b) Explain the various interrupts of INTEL 8085.
- c) Write short notes on the following(any two):
  - i) Program counter(P.C.) ii)
- ii) Microcontroller iii) Computer Network

#### Section V

- a) What is terminals and how many types of terminals.
- b) What is operating system and describe the types of O/S?
- c) Write short notes on parallel processing.

===0===