North East University Bangladesh
Dept of CSE

Course title: Microprocessor and Interfacing
Course code: CSE-321

Assignment : 02

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① Write a short note on the working principle of EEPROM.

EEPROM- It is stands for Electrically Erasable Programmable Read-Only Memory. EEPROM is programmed erased electrically. It can be erased and programmed about ten thousand times. Both erasing and programming take about 4 to 10 milisecond. In the EEPROM any location can be selectively erased and programmed. EEPROM can be erased one byte at a time, rather than erasing the entire chip

② Which RAM is faster SRAM or DRAM? Elaborate on the reasonings based on their construction.

→ Static Random Access (SRAM): Data stored in transistor and requires a constant power flow. Because of the continuous power, SRAM doesn't need to refreshed to

remember the data being stored. SRAM is
called as no change or action.

DRAM (Dynamic Acern Memory) Data stored
in capacitors. Capacitors that data is DRAM
gradually discharge energy, no energy means
the data has been lost. On the other hand,
a periodic refresh of power is required in
order to function. DRAM is called dynamic
as constant change or action

Comparing SRAM and DRAM, SRAM is faster
than DRAM. Because, SRAM is used transistor
to store the data. It doesn't need
refreshed. On the other hand, DRAM is
slower than SRAM. It is used by capacitor.
DRAM provides slow access speeds.

③ Identify the most important peripherals necessary for smooth operation of computer:

A peripheral device is a device that either enters information to a computer system or receives information from the computer system. It receives data and commands from the user, process the data according to the given commands

Types of peripheral devices:

Peripheral devices are classified into three types. they are:

    Ⅰ input device

    Ⅱ output device

    Ⅲ input/output (I/O) device

Input device: An input device inserts data or command into computer system.

Example:
    ↝ A keyboard
    ↝ Mouse
    ↝ Scanner
    ↝ Digital pen
    ↝ webcam

Output device: An output device receive the processed data from the computer system and presents that data to the user.

Examples
- → A monitor
- → Printer
- → speaker
- → Headphone
- ~ Projector

Input/Device
Input/output device: An input/output device can perform both input and output function. ✓

Example:
- → A hand drive
- → USB drive
- → Memory card

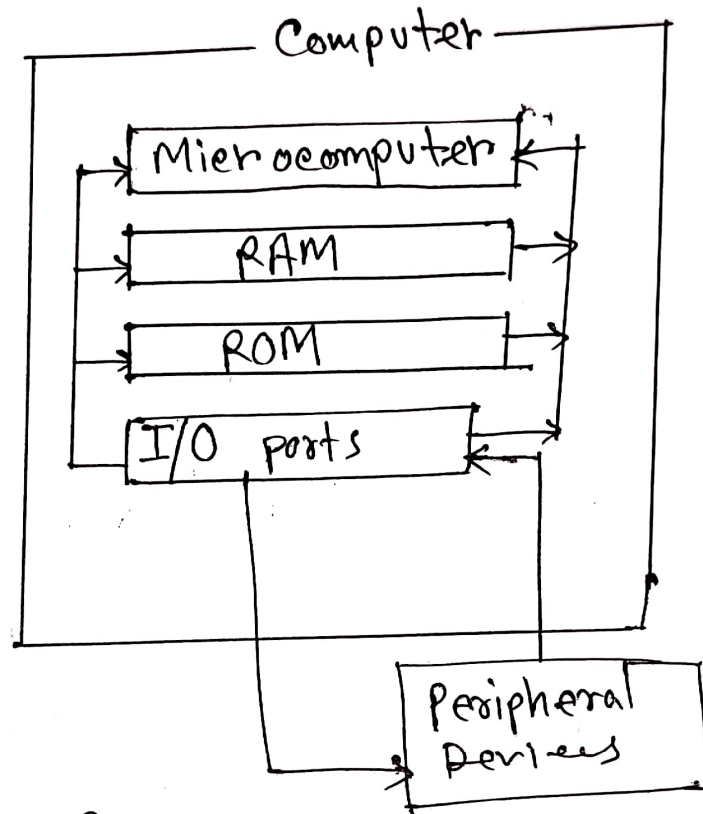④ Draw a simplified diagram to show the parts of a microcomputer system.

Fig: Microcomputer.