



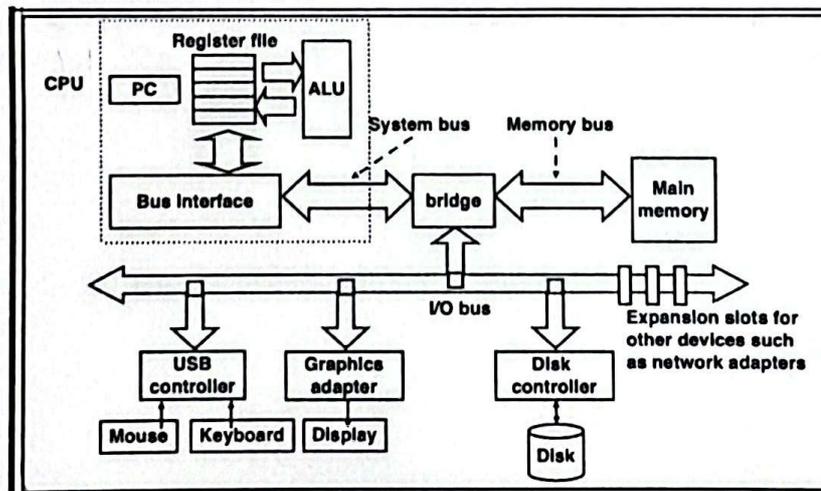
**UNIVERSITY OF BARISAL**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
**3<sup>rd</sup> Year 2<sup>nd</sup> Semester Final Examination -2023**  
**Course Title: Peripherals and Interfacing**  
**Course Code: CSE-3207**  
**Admission Session: 2020-21**

Time: 3 hours

Marks: 60

Answer any five Questions from the followings.

1. a) What is a peripheral device in a computer system? Why do we need interfacing circuits between the CPU and peripherals? [5]
- b) Explain why peripherals cannot be directly connected to a microprocessor. Describe how an interface unit helps in matching speed, data format, and voltage levels between the CPU and external devices. Give one simple example. [5]
- c) Differentiate between off-line and on-line peripherals [2]
2. a) Explain what Bluetooth technology is, how it connects devices wirelessly, and give examples (headphones, keyboards, file transfer between mobiles). [2]
- b) Describe why USB is widely used, its advantages (plug-and-play, high speed, power supply through cable), and examples of USB devices. [6]
- c) Explain in simple terms how data flows through USB (host controller → device → packets), how the device is detected, and how communication is established. [4]
3. a) [5]



- Explain from the figure, how the control unit sends signals to the datapath, memory, and I/O devices. Mention how it controls reading, writing, and executing instructions based on the system bus. [4]
- b) Explain what the datapath contains (ALU, registers, buses) and what the control unit does (generates control signals, manages instruction execution). Describe how both work together. [4]
- c) Describe why we separate hardware into layers (CPU, memory, I/O), how abstraction hides low-level details, and how it helps software work on different hardware without changes. [3]

