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School of University Polytechnic**Diploma in Computer Science and Engineering**
Mid Term Examination - May 2024**Duration : 90 Minutes****Max Marks : 50****Sem IV - N1DF404B - Microprocessor and Microcontroller***General Instructions**Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) How are flip-flops and control logic used in registers, and what roles do they play? K2 (2)
- 2) What is the purpose of the Program Counter (PC) in a CPU, and how does it function? K1 (3)
- 3) Sketch the basic parts of the computer & explain each. K2 (4)
- 4) Briefly discuss the role of the special purpose register in the context of CPU registers. K2 (6)
- 5) Compare and contrast RAM and ROM, highlighting their characteristics. K3 (6)
- 6) Examine the various types of registers found in a CPU, including their functions and significance in the execution of instructions. K3 (9)
- 7) Outline the disadvantages of microcomputers. K4 (8)
- 8) Discuss the features and components of microcomputers. K4 (12)

OR

Discuss the addressing modes of the 8085 microprocessor, emphasizing their significance in instruction execution and providing examples to illustrate their practical applications. K4 (12)